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Lectures on Scarlet Fever. By CASPAR MORRIS, M. D., Philadelphia, late Lecturer on Practical Medicine in the Philadelphia Medical Institute.

LECTURE I.

Description of the Disease.

So fatal have been the results, so fearful the ravages, so wide spread the devastation of this disease, so interesting the period of life at which it commonly occurs, just as parental hopes are budding with promise, and the tendrils of affection entwining themselves the most closely round the heart, that the very name is a signal of distress, and its introduction into the family circle is looked upon as the entrance of the angel of death with an irreprievable warrant to destroy. The parent sits down in the evening the happy centre of a group of smiling objects of affection, his heart swelling with delightful anticipation as his eye glances around the circle; and ere the next return of the same weekly period, half of them slumber in the embrace of death. The

mother's nightly visit is paid to the couch of the only idol, upon whom her hopes are concentrated, and to which the sacrifice of anxious love is hourly offered, and leaves it sleeping tranquilly, no forecast shadow giving sign of the coming sorrow; the morning finds it stricken down by disease, and the evening an inanimate corpse given over to the power of corruption. These are no fancies, no exaggerated images of wo. There is not a practitioner of any extended experience but must acknowledge that he has not only witnessed such scenes, but been a miserable participator in their anxieties and grief. Of many such instances it may be said with truth, no skill could avert the result. Alas! of too many, that well meant but ill directed effort—to use the language of Sydenham, "nimia diligentia medici"—has hurried them needlessly to the tomb.

Nor is it by this rapidity of its course, alone, that scarlet fever is invested with its character of dread. Treacherous beyond all other diseases, cases apparently the least violent, "scarcely deserving the name of disease" in the earlier stages, not unfrequently develop lesions of the most formidable kind in their progress, and result in a fatal termination; while in others, a train of painful and disgusting sequela gradually exhaust the strength with long continued suffering, and entail consequences which remain for years, or even during life. It must be evident that such a disease demands the most careful investigation into its character, cause, and treatment.

I shall not detain you from the consideration of these by any discussion of the various names by which it has been called, nor of the propriety of the divisions which have been adopted by different authors. Objections may be brought against, and arguments adduced in favor of, most if not all these terms and divisions. A name it must have, and *Scarlet Fever* will answer as well as any that can be proposed; though you will find as we progress in the consideration of its symptoms, that some cases have little and others none of the peculiar eruption from which this term is derived. Divisions we must make in order to enable you to classify the cases, and arrange properly your ideas of its character and treatment; and the terms *simple*, *anginose*, and *malignant*, will embrace most cases, though I shall be obliged to notice others, which, not being reducible to either of these classes, though evidently derived from the same origin, I shall designate

as *irregular*. Never, however, allow yourselves to forget that these are but various phases of one disease, which fall into each other by imperceptible shades; so that while the cases which may be assumed as types of each class have strong marks of distinction, there are others which it is difficult to distribute to either.

There is no disease the onset of which is more unexpected or more violent. Rarely indeed are there any premonitory loss of appetite, languor, or headache. Even when the known presence of the disease in a family leads to anxious watchfulness, no deviation from the usual habits marks the individual subject of the next attack. The invasion is generally in the night. A child spends the day in the most perfect enjoyment of health, runs abroad freely, eats heartily, retires to bed as usual, sleeps soundly during the earlier hours of the night, awakes with sick stomach, vomits freely, throwing off the food taken perhaps at the mid-day meal, becomes restless and fretful, has great thirst and heated skin, and when returning daylight affords opportunity of investigation, is found thickly covered upon the face, neck, and chest with a vivid scarlet rash, consisting of minute points interspersed upon a uniform efflorescence, which disappears under the pressure of the finger, but is instantly renewed on its removal. The physician is sent for and finds the pulse beating with a rapidity almost pathognomonic of the disease, so that if precluded from any other mode of investigation, he might, with but little danger of error, predicate scarlet fever from its great frequency alone. The tongue is red and slightly coated with a white fur, through which frequent villi project, reminding him of the strawberry, by contrast; the surface being white and the protruding points of a vivid scarlet color. He looks further, and sees the whole mucous membrane of the mouth and fauces partaking of the same intense redness, with stigmata thickly sown upon it. The child is restless and distressed. Such would be the symptoms of the invasion of a case of simple Scarlet Fever.

Ushered in thus suddenly, the disease pursues a rapid course. Scarcely is the existence of the rash recognized before it is extended to the whole surface of the body; and finally to the lower extremities, which it reaches by the third day, at which period it begins to fade from the parts on

which it first presented itself; the whole duration of the disease not often exceeding five days. There is not in this, as in the pustular and vesicular exanthems, a diminution of the febrile symptoms with the appearance of the eruption. The rapidity of the pulse which is rarely less than 120 per minute, and the heat of the skin, remain unabated. There is no disease in which the heat of the surface is greater. Not only does it communicate a peculiar pungent sensation to the finger, but by actual measured observation it sometimes rises to 105°, 108°, or 110° of Fahrenheit. There is no elevation of the rash *essential* to this eruption, which is often attended by an itching almost as intense as that of urticaria; but in some cases there are small papular elevations on the arms and legs, and it is not at all uncommon to find innumerable clear vesicles of very minute size scattered over the thorax and abdomen, which are very perceptibly elevated both to the sight and touch. The serum they at first contain is rapidly absorbed, leaving the cuticle to form minute glistening scales, separating much sooner than the general desquamation, which takes place at the close of the disease. The intensity of the eruption does not mark the degree of violence; some very mild cases having a vivid universal rash, while in others equally benign it is partial in extent and less bright in its hue. In these cases of simple scarlet fever the condition of the digestive organs varies much. While in some there is an entire loss of appetite, in others there is as constant a desire for food as in health. The bowels are unaffected in the simple form, and indeed in the primary stage of all the varieties of the disease. The kidneys too, maintain their healthy functions during the first four days, but toward the close of many cases the urine becomes scanty in quantity and high colored, but destitute of any deposit.

The functions of the skin are impaired in proportion to the intensity of the eruption. In some mild cases I have known it to continue moist and even perspirable during the whole progress of the disease.

Peculiar as was the appearance of the tongue in the beginning, it becomes still more marked as the case advances. The fur which in the variety now under consideration is never dense, is thrown off suddenly on the second or third day, beginning generally to clear off at the tip and sides, and the surface is

left more entirely denuded than in health, of a color varying in intensity in proportion to the violence of the case. Sometimes but slightly reddened, at others it assumes a hue not much differing from that of raw beef, while the papillæ, elongated or swollen, rest upon a surface often smooth and glazed. This condition of tongue is doubtless owing to the same process taking place in the mucous membrane as that which is known as desquamation of the cuticle, and continues about the same length of time. The symptoms are sometimes so mild, and the nervous system is so little involved in the disease, that the patient may pass through all the stages without requiring any attention. You will find, however, when we come to treat of the sequela that such cases are by no means devoid of interest nor free from danger. Sometimes the character of an entire epidemic is thus mild, and this must undoubtedly have been the case in that recorded by Sydenham, who does not notice the anginose symptoms, though he describes with his usual perspicuity the symptoms as we have just given them to you.

It must not, however, be supposed that all cases of simple scarlet fever are thus mild in their character. In some instances from the intensity of the cause, and in others from the peculiarity of the individual attacked, the nervous system feels more decidedly the impression; and we then have the case complicated with symptoms of a more formidable character. The vomiting or nausea, by which, as I before remarked, the disease is almost invariably ushered in, may be accompanied or followed by violent convulsions; which are often of a peculiar, tetanic character. When the impression is less severe there will be constant contractions of the muscles of the forearm, with startings of the tendons, and twitchings of the fingers; and occasionally we have coma, or even the wildest delirium, manifested by screaming and frequent starting from slumber. On the third or fourth day it is no uncommon event to have the patient complain of pain in the ear, or seized with drowsiness, either of which, after continuing twenty-four hours, will in all probability be followed by the discharge of a thin serum from the external meatus auditorius, which excoriates the neighboring skin, and gives rise to a vesicular eruption in the adjacent parts.

As the rash fades it leaves the surface covered with a dry cuticle,

which separates in very thin scales successively from the face, neck, chest, arms, and legs. The density of these scales depends upon the part of the body and the violence of the eruption. They are very delicate on the face, neck, and arms, while from the hands and feet, where the cuticle is thickened by pressure, it comes off in large patches, and may even, in some instances, be brought away entire.

In the *Anginose* variety, we have the same series of events as those just described, and generally in an aggravated degree. The rash may appear even more vivid, or it may be present only in patches about the folds of the body and on the back and abdomen, or about the flexures of the larger joints, or sometimes only on the hands and feet. The nervous symptoms are more often manifested, and more violent when present. There is often very great tremor of the muscles and disposition to sleep, and when aroused the child is fretful. On looking into the throat there will be found not only the redness which has been described as marking even the cases which have no anginose character, but also a swollen condition of the tonsils and soft palate. They are sometimes œdematous from the very commencement; and corresponding with the internal disease, we find a tumor under one or both angles of the jaw, which is circumscribed and limited in size, and entirely different both in character and appearance from the diffused swelling which will be noticed hereafter. This tumor is not peculiar to scarlet fever, but is similar to that which occurs in every case of inflammation of the tonsils. The difficulty of deglutition is considerable from the very beginning, and there is very often stiffness of the muscles of the neck. The pulse has even greater frequency than was noticed before, but generally less force, yielding more before the pressure of the finger; corresponding in this respect with the general want of tone of the whole system, the frequency evidently depending not on inflammatory stimulation, but on nervous excitement. From the very commencement of the anginose affection there is an abundant secretion of viscid mucus which adheres to the surface of the tonsils and palate, and occasions much annoyance, disturbing the sleep and causing the patient often to start as though strangling; and when this condition extends to the mucous membrance lining the nostrils, and they become obstructed also, the interruption to the

free access of air not only adds to the suffering, but materially increases the danger by preventing the proper oxygenation of the blood already vitiated by the influence of the morbid poison. On examining the condition of the fauces there will often be seen deposits of lymph upon the surface of the tonsils, sometimes white, at others ash-colored and even darker, the color depending upon the presence of effused blood. These exudations have been mistaken for ulcers. In general they may be easily removed either by gargle or other mechanical agency, leaving the surface of the mucous membrane beneath them like the adjacent structure. In other cases they do cover ulcerated spots. This is, however, more frequent in that aggravated form which will claim our attention hereafter. They are generally confined to the surface of the tonsils, but occasionally extend to the fauces and even to the larynx; giving rise to one of the most formidable complications that can occur. The inflammation often extends from the fauces through the eustachian tube to the membrane lining the inner ear; giving rise to intense otitis. Still more frequently the lining of the external meatus takes on ulcerative action, as mentioned when describing the simple form. In either case the pain is severe, and the ulceration destroys the soft tissues, and even invades the bony structure of the ear; causing the loss of the ossicula and leaving the patient subject to prolonged offensive discharge and permanent loss of the sense of hearing. As in the case of the simple disease the tongue generally casts off its coat about the third day, assuming a still more angry appearance than that formerly described. Not unfrequently its edge as well as the mucous membrane lining the posterior nares and fauces take on ulcerative action, and then the lymphatic glands of the neck become much enlarged and exceedingly painful and tender to the touch. I have repeatedly seen both sides swollen, with effusion into the cellular tissue to such a degree as materially to impede the respiration of the child and totally to forbid deglutition. No more pitiable object can be presented than one of these cases. The commissures of the lips so sore that they bleed at every movement of the mouth; the tongue red and polished; the mucous membrane of the fauces turgid and ulcerated; the lymphatics of the neck swollen; and the cellular tissue of the

neck infiltrated with serum, till the hollow between the jaw and clavicles is entirely filled, and the skin is stretched and looks as though it were polished vellum; the head thrown back to remove the pressure from the swollen throat and to facilitate the access of air to the larynx; the nostrils distilling an acrid sanies which is puffed out with a sputtering noise at every expiration, and excoriates the lip and cheeks as it flows over them, and even abrades the cuticle from the back of the hands, instinctively applied to remove it from the nostrils, and thus afford more freedom of respiration; the corners of the eyes ulcerated also,—the wretched child lies unable to swallow; (even the smallest portion of liquid taken into the mouth being ejected through the nose,) and suffering all the pains of hanging; till the most earnest prayer of the fondest parent is for its death. Yet even from such condition we may hope for recovery.

In the anginose form the stages of the disease are as regular as in the simple variety. They are not, however, so perceptible. This is caused by the accession of these secondary sources of irritation which give rise to a fever even more intense than that which has been already described, which naturally terminates on the fifth day. In the most favorable cases the subsidence of the primary symptoms is followed by the decline of the ulceration and consequent glandular disease, and convalescence is established, until the occurrence of some of the sequelæ, which will be noticed hereafter. In other instances these secondary results do not develope themselves until after the crisis of the primary disease has been safely passed.

There is a complication which occasionally modifies this form of scarlet fever, and has given rise to some difficulty of diagnosis which it may not be improper here to refer to. Instead of the extreme symptoms just mentioned, there is only a slight ulceration of the mucous membrane of the nares, which gives rise to symptoms resembling coryza, and the whole case may be considered a cold with rash, and its true nature not being suspected in the primary stages, is first proven by the development of more formidable symptoms in the second stage; or, if the rash be better developed, there is sometimes difficulty in distinguishing the case from one of measles, as I have known highly intelligent and experienced physicians at a loss. This is more especially

liable to occur in those instances where an impeded respiration gives a darker hue than natural to the eruption.

But if in thus describing the horrors of the anginose scarlet fever, the mind turns with a shudder from the delineations of memory, what shall we say of the *Malignant form?* The mere presentation of the subject to you is "infandum renovare dolorem," and you may well desire to know it only by report. Under this term it is my intention to include only those cases which have by some been regarded as a violent form of the anginose scarlet fever, leaving for the class of *irregular* cases those varieties which, though of the most grave character, have no affection of the throat.

In *Malignant* Scarlet Fever there are violent pains of the legs and arms, and the rash may make its appearance on the back of the hands and the feet before it is seen on any other part of the body. The temperature of the body varies. In those cases in which the prostration is extreme, it is cold; and the rash, if it appear at all, has a livid hue, and may assume the appearance of purpura, and even be mingled with petechiæ and vibices. In some cases the rash comes out imperfectly for a time, and then disappears, re-appearing again so late even as the seventh day. Instead of the general flush like the efflorescence of the simple scarlet fever, there are only points about the flexures of the limbs, or those parts of the body which are kept the warmest. Often it does not appear at all, the whole body being rather of a *waxy paleness;* at other times there is an intense lurid erysipelatous flush which is even occasionally of a livid hue.

The condition of the throat and brain vary also; I have seen the brain intensely excited from the very onset of the disease, though in general there is coma more or less profound. The throat is swollen so as almost to render deglutition impossible. The tonsils, uvula, and soft palate lie flaccid, looking more like portions of purple velvet than living tissue; coated with black lymph in large portions; which, slightly loosened at the edges, betray an ulcer beneath; a horrible ichor discharges from the nostrils, and the room is filled with the most offensive fetor. In many instances the powers of life are totally prostrated from the very beginning. A child will be running about in apparently perfect health one hour

"feeling its life in every limb," and manifesting its power in untiring gambols, and the next may be found with a glassy and sunken or upturned eye, feeble and frequent pulse, cold surface, great jactitation, and will sink steadily to death in despite of every effort; the sedative influence of the miasm being so intense that no reaction takes place. The disease is not in fact fully developed, and its character might be doubted were it not that the subsequent discovery of an imperfectly formed eruption about the neck, or the occurrence of other cases in the same family or neighbourhood, afford sufficient evidence of its true nature. But the chaste and accurate description of an epidemic form of the disease given by the distinguished Fothergill, nearly a century ago, can scarcely be improved upon. He says, "it comes on generally with such a giddiness of the head as commonly precedes fainting, and a chilliness or shivering like that of an ague fit; this is soon followed by great heat; and these interchangeably succeed each other during some hours, till at length the heat becomes constant and intense. The patient then complains of an acute pain in the head, of heat and soreness rather than pain in the throat, stiffness of the neck, commonly of great sickness, with vomiting or purging, or both. The face soon after looks red and swelled, the eyes inflamed and watery as in measles, with restlessness, anxiety, and faintness. The disease frequently seizes the patients in the fore part of the day. As night approaches the heat and restlessness increase, and continue till towards morning, when after a short and disturbed slumber (the only repose they often have during several nights,) a sweat breaks out, which mitigates the heat and restlessness, and gives the disease sometimes the appearance of an intermittent." (This fluctuation, even in diseases where the lesions are fixed and unchangeable, is one of the most mysterious circumstances which passes under our observation. The cause is as yet wholly unknown.) "If the mouth and throat be examined soon after the first attack, the *uvula* and *tonsils* appear swollen; and these parts, together with the velum pendulum palati, the cheeks on either side near the fauces, and as much of them and of the pharynx behind as can be seen, appear of a florid red color." (This color varies in different cases.) "The color is commonly most observable on the posterior edge of the palate in the angle above the tonsils and on the tonsils

themselves. Instead of this redness, a broad spot or patch of an irregular figure and of a pale white color, is sometimes to be seen surrounded with a florid red, which whiteness commonly appears like that of the gums immediately after being pressed with the finger, or as if matter ready to be discharged was contained underneath."

"Generally, on the second day of the disease, the face, neck, breast, and hands to the fingers ends, are become of a deep erysipelatous color, with a sensible tumefaction; the fingers are frequently tinged in so remarkable a manner that from seeing them only it has not been difficult to guess at the disease. A great number of small pimples, of a color distinguishably more intense than that which surrounds them, appear on the arms and other parts. They are larger and more prominent in those parts of the same subject, where the redness is least intense; which is generally on the arms the breast and lower extremities." (In a later edition of his works, 1754, Dr. Fothergill adds a note which is perfectly characteristic of the disease.) He says, "The *redness* and *eruption* have not accompanied this disease so regularly, during the latter part of this winter, as they did in the preceding seasons; in some cases they did not appear at all; in others not till the third or fourth day; and, as I have heard, in some not till the fifth, and even later." I have already drawn your attention to this want of eruption in many cases.

"As the skin acquires this color the sickness commonly goes off, the vomiting and purging cease of themselves, and rarely continue after the first day. The appearance of the fauces continues to be the same, except that the white places become more ash-colored, and it is now discoverable, that what at first might have been taken for the superficial covering of a suppurated tumor, is really a slough, concealing an ulcer of the same dimensions. All the parts of the fauces above mentioned are liable to these ulcerations, but they generally are first discoverable in the angles above the tonsils or on the tonsils themselves; thoughthey are of ten to be seen in the arch formed by the uvula and one of the tonsils, and also on the pharynx behind, on the inside of the cheeks, and the base of the tongue, which they cover in the manner of a thick fur. Instead of these sloughs where the disorder is mild, a superficial ulcer, of an irregular figure, appears in one or more of these parts, scarce to be dis-

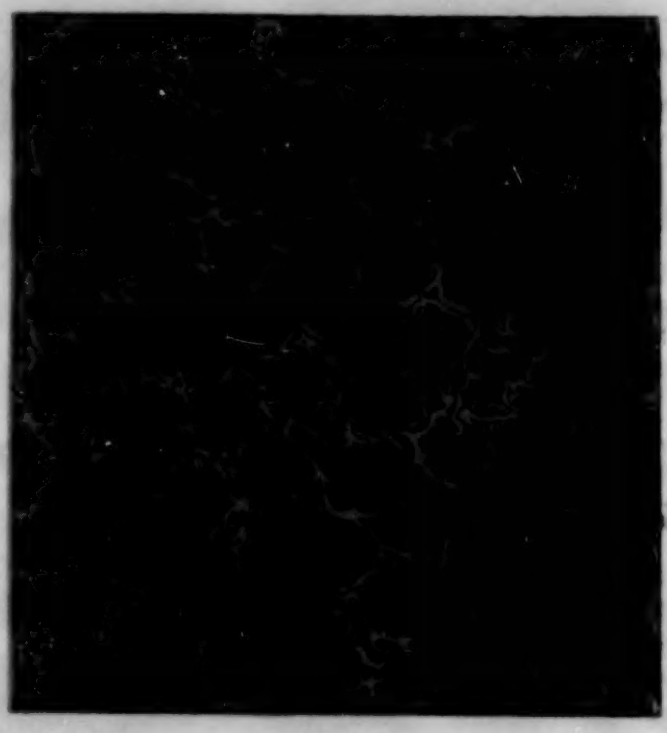
tinguished from the sound, but by the inequality of surface it occasions."

"The parotid glands on each side commonly swell, grow hard, and are painful to the touch ;* if the disease is violent, the neck and throat are surrounded with a large œdematous tumor, sometimes extending itself to the breast, which, by straightening the fauces, increases the danger. Towards night, the heat and restlessness increase, and a delirium frequently comes on. This symptom, which appears in some even on the first night, seems to differ considerably from the like affection in other diseases. The sick commonly answer the questions put to them properly, but with an unusual quickness ; they talk to themselves incoherently when left alone, and frequently betray the first tendency to this disorder by affecting too great composure." (In this circumstance it is only coincident with other malignant diseases, as yellow fever, cholera, &c.) "This, for the most part, happens to those who sleep but little, for some are comatose and stupid, and take little notice of anything that passes. In this manner they continue during two, three, or more days ; they commonly grow hot and restless toward evening, which symptoms, and the delirium, increase as night comes on ; a sweat more or less profuse breaks out toward morning, and from this time they are easier during some hours ; a faintness only continuing, of which they frequently complain more than of the rest of their sufferings. The disease seems to have no stated period which can properly be called its Ἀκμη or height. Some grow easier from the first day of the attack, but in general the symptoms of recovery appear on the third, fourth, or fifth day, and proceed in the following manner. The redness of the skin disappears, the heat grows less, the pulse which was hitherto very quick becomes slower, the external swellings of the neck subside, (sometimes they continue to increase and suppurate,) the sloughs on the fauces are cast off, the ulcerations fill up, the patient sleeps without confusion, is composed when awake, and his appetite begins to return.

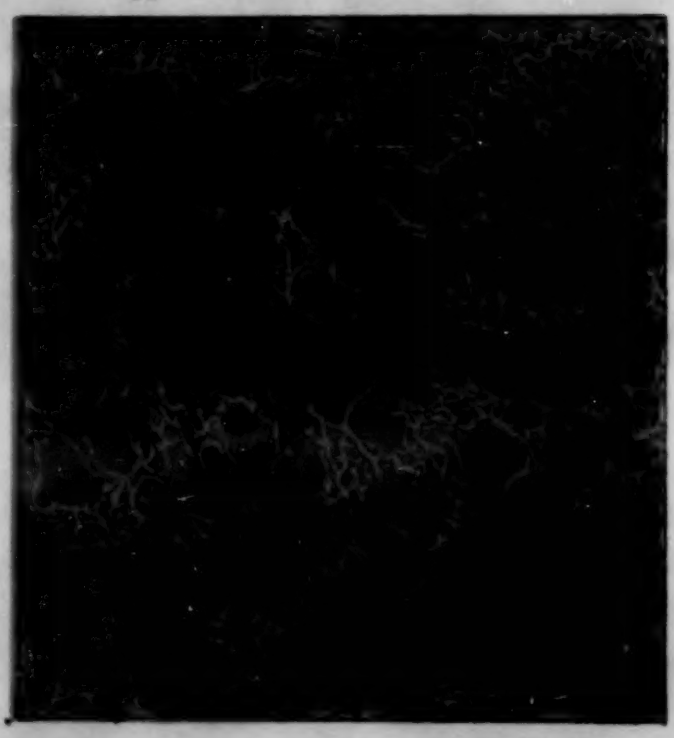
The *pulse* during the whole progress of this disease is generally very quick, frequently 120 or more in a minute; in some hard and small, in others soft and full, but without that strength and

* This is an error. The swelling is not of the Parotid, but of the Lymphatic glands under the angle of the jaw.

Colon - from a Child. 4 years old.



Appendix Vermiformis - from a foetus.



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firmness which usually accompany equal quickness and heat in genuine inflammatory disorders."

"If a vein be opened soon after the distemper is come on, the blood generally appears of a fresh florid red; the crassamentum is rather of a lax gelatinous texture than dense or compact; the serum yellow and in large proportion.

"The *urine* is at first crude, and of a pale whey color. As the disease advances it turns yellower, as if the bile was detected in it, and soon after the patient shows any marks of recovery, it grows turbid and deposits a farinaceous sediment."

(To be continued.)

On the Structure of the Mucous Membrane of the Appendix Vermiformis Cœci and Colon. By JOHN NEILL, M. D., *Demonstrator of Anatomy in the University of Pennsylvania.*

(With a colored Plate.)

The capillary vessels present great diversities of arrangement in the different organs of the body. Even in the same organ differences exist in their form, interlacement and connection. Of this, we have one illustration in the stomach, the cardiac portion exhibiting an appearance totally different from the pyloric; and another, in the small intestine, the upper portion being easily recognized from the lower, by the forms constituted by the capillaries. Although we cannot always prove a difference of function, where we can show a difference of form, nevertheless it is interesting to observe any peculiarity of structure which is definite and constant; and even if we cannot at present point out any practical benefit resulting from the exhibition of the fact, still, the demonstration of the arrangement of the capillaries in any special organ of the body will have its value to the student of Microscopic Anatomy.

The mucous membrane of the Appendix Vermiformis differs very materially from that of the Colon in the arrangement of its capillaries, as will be seen by the accompanying drawings.

When the mucous membrane of the colon is properly injected and deprived of its epithelium, it is regularly studded with mucous crypts or follicles of Leiberkuhn, which are very much of the same size and shape; the orifices are formed by a poly-

gonal ring of one or two capillaries, which gives the whole surface an appearance very similar to that of ordinary coarse lace. (Fig. 1.) The depth of these crypts is sufficiently great to render the term tubule applicable to them, and unless the epithelium is carefully removed from these tubules by washing, or the preparation dried, so that the epithelium becomes transparent, the capillaries forming the parietes of the crypts or tubules are not evident. The regularity and number of these crypts are sufficient to render the colon distinguishable from the stomach, although numerous high anatomical authorities state that no difference exists between the mucous membranes of these important organs; but when we accurately consider the forms of the orifice, the depth of the crypt, together with the arrangement of the capillaries forming the orifices of the crypts, and the intervening spaces, the difference between the mucous membrane of the stomach and the colon will become evident even to the superficial observer.

The Appendix Vermiformis exhibits a different arrangement of its capillaries from the colon, (Fig. 2.) the crypts are variable in size and shape, and the distances between them are by no means uniform. The interstices between them are formed by a beautiful interlacement of capillaries which presents an extremely regular appearance.

[The same observer has described the anatomy of the mucous membrane of the stomach in the Amer. Jour. of Med. Sciences for Jan. 1851, accompanied by an illustration of the different appearances of that membrane in the cardiac, middle and pyloric portions. The following is his description:

"The surface of the mucous membrane presents different appearances in different portions of the stomach; this fact not having been sufficiently appreciated by observers, we consider as one of the sources of error in the ordinary descriptions of this organ. By far the larger portion exhibits various modifications of the honeycomb structure, the cells are large and polygonal in some parts; in others, they are smaller, deeper, and rounder; the ridges between these cells are formed of one or more convoluted capillaries, and this arrangement of capillaries is particularly evident in the rugæ. The walls of these cells or pockets are formed of a network of capillaries, which subdivides each cell into smaller ones; these cells are what are ordinarily called the orifices of gastric glands, and the subdivision in the bottom of each cell corresponds

with the described orifices of tubuli. In the antrum pylori, the structure is modified, the ridges between the cells become larger, more elevated, and as we approach the pyloric orifice, *conical villi* make their appearance; these villi are more numerous and larger towards the pyloric valve, so that fewer of the angular or polygonal cells are visible in their interstices; they are not so large as the villi of the small intestine, but in other respects their external appearances are precisely similar. When well injected, they seem to be composed of capillaries, closely united by a basement membrane, and forming a pyramidal projection.

There may be said to be three different appearanees presented by the microscopic examination of the injected capillaries of the mucous membrane of the stomach when deprived of its epithelium. First. The convexity of a large ruga will have a comparatively smooth and even appearance formed by convoluted and intertwining capillaries. Second. Any other portion excepting the antrum will exhibit cells or alveoli of different sizes and shapes, separated by ridges of various thicknesses, and these ridges are composed of capillaries arranged in the same manner as in the rugæ. Third. In the antrum pylori there are *conical villi*, and cells exist in the interstices and at their bases.

That the main point which we wish to prove may be understood in a few words, we would simply state that we consider the capillaries arranged in the form of 'ridges, cells, and *villi*.' The question may now arise whether this description in any manner deviates from those ordinarily given in the standard works of the day? We consider that it does, particularly with reference to the villi, the existence of which, in the stomach, we wish fully to establish by description and demonstration. It might be asked whether the term *villous* has not consequently been used with reference to the mucous membrane of the stomach? Unquestionably it has, though in a vague and loose way, as indicating a smooth, velvety surface; but not as implying a vascular, papillary projection to which the term *villus* is applied in the intestine."

The variety of opinions that have been expressed in relation to the appearance of the mucous membrane of the stomach has probably arisen from the fact that observers have either failed to inject the mucous membrane, or, what is more likely, have contented themselves with the examination of a *portion* of the stomach only, and have taken that as a type of the whole. Hence we find one author describing it as composed of cells or tubules, and another of villi. To Dr. Neill is due the credit of having first pointed out its varying condition in different portions, and the existence of these "gastric villi."

In regard to the *functions* of these different portions of the stomach, we hazard the opinion that the cardiac portion, where the polygonal cells are most abundant, is mainly intended for

the secretion of the *solvent fluid*, the gastric juice; whilst the pyloric portion, in which the *gastric villi* are most abundant, is destined for the *absorption* of such portions of the food as having been reduced to a fluid condition, and possessing the proper degree of tenuity, are enabled to pass into the blood vessels by endosmose; the main object of the villi in this position, being to afford a more extended absorbing surface. That they are not concerned in *chylous* absorption would seem to be proved from their not containing, or communicating with, any chyliferous vessels, from there being no mesentery attached to the stomach, and, of course, no mesenteric ganglia. This view of the function of these portions of the stomach would seem to be supported by the fact that a species of hour-glass contraction of the stomach is sometimes seen to occur, dividing the cardiac from the pyloric portion, the cardiac end retaining the undigested portion, while the fluid materials are passed through the narrowing into the pyloric extremity.* In regard to the question of absorption by the veins of the stomach, it is the opinion of many physiologists, that all thin solutions which require no elaboration, all substances fluid at the temperature of the stomach, and those that are soluble in its secretions, may pass at once into the mass of blood by the physical process of endosmose.† It will at once be seen, therefore, how admirably the villous arrangement of the mucous membrane of the pylorus is adapted to this end by presenting so large an absorbing surface in so small a space.

F. G. S.]

Case of Prolapsus Iridis. By G. R. Morehouse, M. D., Philadelphia.

James Mahoney, æt. 19, on the morning of Dec. 4th, while engaged at his occupation of sail making, received a severe injury of the cornea in the following manner. In attempting to pass his needle through a tense seam of sail-cloth, it slipped from his grasp and was thrown by the recoil of the seam against the cornea of the right eye, penetrating it midway between its

*Muller's Phys. Vol. I. pp. 550. Beaumont, p. 113. Carpenter's Principles of Physiology, p. 490. Mageadie, p. 290.

†Blondlot, Traité Analytique de la digestion.

centre and external border. The needle was almost immediately withdrawn from it position, by its own weight, aided by the movements of the patient. About two hours after the occurrence of the accident, I saw the case for the first time; the patient then complained of moderate pain, intolerance of light and excessive lachrymation. Upon examination it was found the needle had cut its way through the membrane of Descemet, as well as through the cornea, making an incision of about one-eighth of an inch in length, very nearly in the line of the transverse axis of the eye. A great portion of the aqueous humor had been evacuated and still continued to ooze from the opening when the head was placed in a favorable position. A fold of iris was protruding, forming a flat triangular projection, the base of the triangle coinciding with the line of incision, and its inner boundary being formed by the pupillary margin of the iris; it was between the two layers of this free border that the aqueous humor continued to escape. The pupil was much elongated, its external margin terminating in the point where the fold of the iris protruded through the cornea. The color of the projecting portion was not sensibly different from that natural to the iris of the right eye. The iris of the left eye could not be compared, having been darkened by previous disease. As might have been anticipated, from its color remaining unchanged, the protrusion was found, upon examination with a pocket glass, but slightly congested, probably owing to the line of incision corresponding in direction with the course of its principal vessels.

Under the circumstances which this case presented, the indication was evidently to restore the iris *whole* to its natural position, if possible, and if not, to snip off the protruding portion, preferring an enlarged and irregular pupil, rather than opacity of the cornea with synechia anterior, which would have inevitably resulted, had the iris and cornea been permitted to remain in apposition. To aid, therefore, in the reduction, as well as to prevent further effusion of the aqeuous humor, the patient was put upon his back, and with the hope of producing dilatation of the pupil and consequent retraction of the protruded iris, a solution of the active principle of belladonna in the following propor-

tions was applied, by means of a camel's-hair pencil to the conjunctiva of the injured eye:

R. Atropiæ Sulphat, gr. v.
Aquæ distillatæ, f.℥j.

The iris, however, being deprived of the support of the aqueous humor, did not respond so markedly as is usual, to the action of the atropia. It was therefore thought necessary to repeat the application, and in this instance it was made to both eyes with much increased affect. Cold water was also permitted to drop on the iris—to reduce the size of the protrusion as much as possible. Under this treatment, the iris, in half an hour from the first application, had entirely withdrawn itself within the orifice, and resumed its natural position, the lips of the wound in the cornea were pressed together and their edges touched with nitrate of silver. The patient was ordered to remain upon his back—but lest he should fail in doing so, the extract of belladonna reduced to the consistence of honey was smeared over the eyelids and about the orbit, to keep the pupil continually dilated.

On the morning of the next day, the wound was doing well; the photophobia was very slight; the patient, however, complained of pain in the temples and about the orbit; the change in color of the reduced portion of the iris was more marked than at first. An active cathartic was prescribed to counteract the tendency to inflammation. In the evening—the pain was less severe, the bowels had been copiously moved. On the following day all the symptoms were much improved, in the iris the incision the cornea had healed, the difference of color was much less marked, and the pain had entirely gone. The patient recovered in a short time, the functions of the iris remaining perfect, and the cornea free from opacity.

Remarks on California. By G. R. B. HORNER, M. D., U. S. N., late Fleet Surgeon, Pacific Squadron.

(Concluded.)

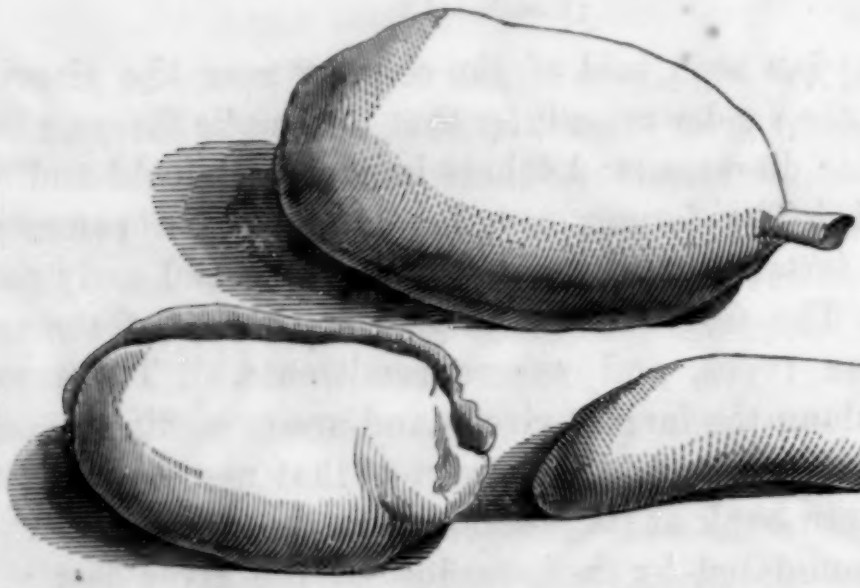
From what has been said of the country near the rivers, and the climate, the reader must infer that miasmatic fevers, rheumatism, pulmonic diseases, and others incidental to cold and moisture abound. The former complaints prevail in summer, the latter in the latter part of the fall, the winter and early part of the spring. The fevers are mostly intermittents of the tertian and quotidian types, and severe remittents. These prevail principally along the largest rivers, and are exceedingly common on the Sacramento, and in the town of that name which stands upon its eastern bank at its junction with the American, and was completely inundated by the overflow of the river last winter. The banks then sloped backwards; the dykes formed were insufficient to keep off the water—it ran around the back of the town—was eight to ten feet deep in some places, and drowned a number of the inhabitants. In July I saw several of the boats used for transit between their houses still lying upon the ground behind them, and among the majestic oaks which shade the banks and rival in height the noble sycamores, which overhang the river, and the numerous vessels anchored along its margin. Among the multitudes of emigrants in California, the typhoid fever, phthisis pulmonalis, scurvy, diarrhœa and dysentery prevail, but the last is most fatal, and has had numerous victims. When conjoined with scurvy it is very fatal. The most severe cases of dysentery, I met with at San Francisco; and in the post mortem examination of one at the city hospital, owned by its able superintendent Dr. Peter Smith, we found the most intense inflammation, with ulceration extending the whole length of the alimentary canal.

Another similar case was under treatment. The nitrate of silver in large doses, even to the amount of 10 and 15 grains, was the principal remedy employed. I understood from him, that he likewise used for the cure of that complaint, and intermittent, the kernels of the Cedron,* a fruit obtained at Panama.

*Some account of this fruit, with its therapeutical uses, will be found in the "Record" of this number.—EDS. EX.

They are an inch and a half long, bi-lobed, brown externally, white within, intensely bitter, and contained in an oval pod.* He

No. 1.



No. 2. No. 3.

gave them scraped, in the dose of 10 or more grains, and thought them equally as efficacious as quinine. The cedron has great celebrity, among the people of the Isthmus, for the cure of snake bites; and he states that they carry it about their persons, to have it in readiness for immediate use when needed. Dr. Smith gave me a number of the kernels and one entire pod, which I brought home for distribution. While crossing the Isthmus I would have been pleased to find the tree which yields this valuable medicine, but I was unable to obtain any accurate description of it, or of the places where it grows. We may, however, be able, after a time, to learn its history, through some of the many travellers passing Panama.

On board the Savannah a number of scorbutic cases occurred while she laid at Saucelito, four miles from St. Francisco. Other cases occurred in the Ohio while there, and several in different vessels of the squadron. Those in the Savannah happened last December and January, and were ascribed not more to the want of vegetable food, than to the constant dampness and chilliness of the air, which induced perfect torpor of the skin, suppressed all perspiration, and induced livid blotches upon it by stagnation of the venous blood. Small dark red specks, like flea-bites, on the lower extremities, swelling of these, and

* No. 1. The pod of the cedron. 2. The two lobes stripped. 3. A side view of one of them.

severe pains in the joints, were other prominent symptoms. Soreness of the gums was another, but in only two instances was it severe. In one of them they became fungous and swollen to a great size. Death occurred only in one case, that of an old marine, who had scurvy joined with dysentery originally acquired during a campaign in Mexico. Not aware of this fact and of his liability to that complaint, I treated him for scurvy after the ordinary manner, allowed him lemonade, apple-water, vegetable diet and bitters, and in this manner probably brought on the dysentery. In the treatment of the scurvy, in conjunction with regimen, the extract of cinchona and gentian, and sulphate of quinine were beneficially used. Warm bathing, frictions of various sorts, poultices, alum, solutions of the sulphate of zinc, and the muriated tincture of iron, were other remedies employed; the last one internally, the others for various local affections of the limbs and mouth. To reduce the swelling of the gums scarification was indispensable. Warm clothing was worn and other comforts allowed the patients when they could be procured. But the supply of fresh provisions was very imperfect, few could get more than dried apples, some wild water cresses and potatoes to eat, and none had the benefit of a hospital of any kind. Our government owned none: private ones were located in the chief towns, but the charges were enormous, accommodations bad, and temptation to desertion so strong that our men could not be trusted out of the ships. I made many fruitless endeavors to get a naval hospital afloat or on shore. Benicia was strongly recommended on account of its superior climate, water, fuel, convenient location, and building materials, and we hope that when labor has become reduced to a reasonable rate, that a hospital will be erected there suitable to the wants of the large naval force we shall have to keep on the coast of California. As for our merchant seamen, and many invalids on shore, they were worse off than our men, who had at least dry bedding and a shelter from the weather. Drugs and physicians were abundant in some parts, but the former were so dear and bad in many places, that patients had to choose between sickness and starvation, and often to prescribe for themselves. Hence, among other instances, I met with a very respectable citizen who had the scurvy, who asked my advice, and on examination was found with his legs covered with slices of raw pota-

toes held on by bandages. When asked if he thought the former had been of service, he said he thought they had, as they had *become black.* I expressed my doubts on the subject, and recommended he should apply the potatoes internally. In numerous other instances I was called on to prescribe privately, and in several for surgical complaints. Of the latter the most important was that of a young emigrant, who had dislocated his right arm six months previously while on his passage around Cape Horn. He was very anxious to have the bone restored to its place. I made several attempts for this purpose, with and without pullies, but, as he was informed of the risk he ran of having the axillary artery torn, he became afraid of any more attempts being made, and went up to the mines to seek his fortune, crippled as he was.

In coming home I met with two other emigrants who had been injured, one had blown off a thumb in firing a pistol, the other had been knocked down, robbed, and had broken his right thigh bone, for the cure of which he had paid a thousand dollars, and yet had it shortened an inch and a half. In a third case, the patient had had a portion of the bones of the right fore-arm blown off by the accidental discharge of a gun, and had been obliged to suffer amputation on board one of the ships of the squadron, to which he was brought for treatment. In a fourth instance I went two miles ashore to hold a coroner's inquest, on the body of another young emigrant, Thomas S. Davidson, of New Orleans, who had gone out to chop wood and shoot game; but so far as we could ascertain, he had shot himself accidentally when loading one barrel of his gun, while the other was charged. We came to this conclusion from finding a ramrod some feet from the gun, one of the barrels discharged, and the fatal wound extending obliquely upwards through the anterior part of the thorax, from the left to the right side, and in the direction a gun is held when being loaded. His hatchet was found beneath the branches of a low widely-spread horse chesnut which he had chopped in eight different places; and his body lay prostrate on a lawn about twenty yards distant. Convinced from these circumstances that he had come to his death accidentally by his own hands, and that his brother huntsmen, who had their tent pitched in a neighboring valley, were free of all suspicion of being concerned in his untimely end, we had him wrapped in one of their blankets, and buried in a grave dug by our boat's crew on

the spot. My worthy companion, Lt. Leroy, and myself then returned to the flag ship, and made an official report of the inquest to Commodore Jones. Many more unhappy incidents, similar to those mentioned, have occurred in the country, and when we take into consideration the great number of our countrymen and others who must suffer from like accidents and from disease, it must seem incumbent on us to provide for them the means of being relieved, and above all to prepare for the indigent, hospitals well built, and furnished with all the necessaries calculated to restore them to health, or add to their comfort as long as they live. For adult males there were hospitals at St. Francisco, Benicia, Sacramento, and Marysville. In the city hospital of the first place, $4 per day were paid by the corporation for every public pauper, and in the marine hospital patients who have not paid the capitation tax of $2, are charged $28 per week. In all other hospitals known to me not less than $5 a day were charged, and in that of Benicia, owned by Dr. Peabody, $10 a day were paid. But in all California I do not know of a single hospital, public or private, where a child or a woman could be, for any price, provided with proper attendance and even ordinary accommodations, and the recent destruction by fire of the city hospital at St. Francisco, will occasion still greater suffering among invalids of every description, but especially to those affected with cholera, which has just made its appearance in California.

CLINICAL REPORTS.

Summary of the Course of Demonstrative Surgery in the University of Pennsylvania, from December 14, 1850, *to January* 18, 1851. (Reported for the "Examiner.")

In continuing our Report of the cases and operations presented to the Medical Class of this Institution, (see No. 1, Jan. 1851, of this Journal,) the general arrangements of the course should be borne in mind. Its object is to increase the experience and practical

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knowledge of the student, by presenting him with cases of marked interest, either in diagnosis, pathology, or practice. No attempt is therefore made to show a number of patients, experience having proved that one or two operations, together with the remarks on the peculiarities of important cases, is more than sufficient to occupy sixty minutes, the period alloted each day to this portion of the course of Demonstrative instruction.

For the study and examination of the ordinary cases of surgery, an opportunity is afforded in the Dispensary of the Institution, where abscesses, ulcers, varicose veins, ophthalmiæ, &c., are sufficiently common. From the number of cases there collected, and from the private patients of the Lecturers, those shown to the class on Wednesday and Saturday, are selected, with a special view to their practical value. But as the readers of a journal may justly expect more than a detail of matters, which though highly useful to a student, could not possibly be so to a practitioner, such cases have been culled from those shown since the last report, as seemed most worthy of note, as well as illustrative of the value of this kind of instruction.

Case of Molluscum Contagiosum—Amputation.

In our last report, reference was made to an old lady who had labored under a disease believed to be Molluscum, and from whose arm two of the tumors were removed. Having now recovered fully from that operation, she was again brought forward by Dr. Smith, in consequence of a change in her symptoms, which required further treatment. The arm above the elbow was now perfectly sound; the axillary glands and lymphatics healthy: the patient's digestion, &c. good, but she had been much exhausted by hæmorrhage, consequent on sloughing in the ulcer below the elbow. She now showed no signs of disease elsewhere; but the whole fore-arm was so involved in the tumors, and in the sloughing ulcer at its upper third, that little or no hope of the recovery of the usefulness of the limb, was entertained. As the sloughing had also opened the veins at the bend of the elbow, and the ulcer extended around two-thirds of the fore-arm, Dr. Smith stated, that a consultation had decided that amputation furnished the best means of arresting the disease. Accord-

ingly, after perfect etherisation (by the anæsthetic mentioned in our last report,) the Doctor removed the limb above the elbow, by the ordinary circular operation. During its performance, as well as throughout the dressing, the patient remained, as she subsequently stated to the class, unconscious of all that was done. No bad symptom followed, and the stump was sufficiently healed in fourteen days, to enable her to return to her home.

On an examination of some of the tumors, by the microscope, Dr. Joseph Leidy found that they presented numerous nucleated cells, with encephaloid matter so intermingled with fibres, &c., as to leave but little doubt of the malignant character of the disease.

Fungus Hæmatodes of the Thigh.

On the renewal of the course, after the vacation of Christmas, Dr. Horner presented a gentleman laboring under a fungous tumor on the outside of the thigh, just above the knee. This tumor had commenced in a very unsuspicious manner, about eighteen months since, but had lately rapidly increased and now presented well-marked characteristics of the medullary fungus of Müller. An operation was theretore left for further consideration.

Calculus in the Bladder—Operation of Lithotripsy.

Dr. Horner also presented (January 4th) a patient laboring under Stone in the Bladder, which had existed several months. After detailing the history of its formation, &c., the Doctor introduced Heurteloup's instrument, and immediately seized the stone, on the right side of the bas-fond of the bladder. After crushing it three times, he withdrew the instrument, the patient exhibiting so little inconvenience, as to be able to return to his home. In the previous soundings of this patient, little sensibility was shown, and it was, therefore, not thought necessary to etherise him. During the operation and up to this date, he has suffered no further trouble than that arising from the lodging of a fragment in the prostatic portion of the urethra, from which, however, it was readily removed and returned into the bladder.

At the same time, Dr. Horner removed several large nasal polypi, by means of the wire ligature of Physic, and double

canula of Levret. These polypi were of the soft or moist kind—consisted of a moist, homogeneous tissue, covered by a thin process of mucous membrane, and contained in their cells a mucous or sero-mucous fluid, which, on being evacuated, left only the mucous, or skin-like covering.

Patients suffering from Carbuncle, Scirrhus of the Tonsils, Fracture of the Olecranon, Encysted Tumors, &c., were presented and treated between this and the next date, but offered nothing worthy of general notice.

Amputation of the Thigh.

On the 11th of January, Dr. Smith brought forward a patient laboring under a disease of the knee, which was believed to be scrofulous in its character. Two years since, this patient had fallen, whilst running, and struck his knee against the curb-stone. Violent inflammation ensued, accompanied by swelling around the joint, and followed by extensive suppuration in the ham. After some months, finding himself no better, he entered the Pennsylvania Hospital, where he remained five months, but left the institution uncured. He was then treated at his home, until April, 1850, when he entered the St. Joseph's Hospital, a new institution, in the northern portion of the city, under the care of the Sisters of Mercy. The leg was then bent nearly to a right angle with the thigh; a long, superficial ulcer existed in the ham, and extension of the limb could not be accomplished. His general health was also much impaired, and the discharge from the ham was disposed to burrow beneath the fascia. Under constitutional treatment and the use of Stromeyer's splint, the leg, however, was gradually extended: the ulcer healed with the exception of a small spot, and he was enabled to walk about, with the splint and the aid of his crutch. In July he left the Hospital and returned home; soon after which he had a return of swelling in the knee, for which he was advised to consult a great "knee-doctor," by whose direction the splint was removed, and stimulants applied around the joint. It is hardly necessary to say, that he soon got worse. The leg resumed the flexed position; suppuration again became free in the ham, and an abscess, believed to be exterior to the joint, opened in front, and on the side of the patella: hectic fever became developed, and

being exhausted in body and mind, he determined to seek relief in amputation.

On a careful examination of the limb, the operation was deemed advisable, and after etherization, Dr. Smith, assisted by Dr. John Neill, removed the limb a few inches above the knee, by three circular sweeps of the knife, inclined obliquely upwards, so as form a hollow cone, of which the end of the bone was the apex; the first through the skin, which was forcibly retracted—the second through the first layer of muscles, also retracted—and the third down to the bone, as recommended by Alanson, and often practised in France in this amputation. On uniting the flaps, the stump appeared to be well formed and adapted to receive the artificial limb which the patient purposed to wear on his recovery. On dissection of the parts after the operation, the skin of the ham was found to be firmly adherent to the tissue beneath by cicatrices; the cellular structure indurated and infiltrated with lymph, cutting not unlike scirrhus; the tendons of the biceps, semi-membranosus and semi-tendinosus, were adherent to the surrounding parts, and the inflammation developed in the ham, had penetrated the joint from behind. The synovial capsule was dry and thickened, but without ulceration or disease over the cartilages, while the crucial ligaments and sides of the condyle at their origins, were so soft as to yield to the action of the forceps with great facility. The stiffness was therefore evidently the result of external inflammation, which had travelled into the joint from behind, and would probably have resulted in cartilaginous ulceration and bony anchylosis, if hectic had not previously destroyed the patient.

Scirrhus of the Penis—Amputation.

After this case was removed, Dr. Horner brought forward a patient suffering from Scirrhus of the Penis. From previous treatment in the Blockley Hospital, the progress of the disease had been from time to time arrested, though not more than one-fifth of the penis remained. The bulb and corpora cavernosa were now indurated; sloughing had destroyed the urethra nearly to this point, and the patient suffered constantly from pain, excoriation of urine, ulceration, &c. As the inguinal glands had never been affected, and his general condition required that some effort should be made to remedy the state of

the parts, Dr. Horner determined to remove the crura of the penis and bulb; separate the scrotum by a middle vertical incision, and thus form a canal from the pubis to the inferior extremity of the scrotum through the latter. Accordingly by a V shaped incision, the base downwards, he removed the remains of the organ; arrested the hæmorrhage, which was by no means severe, and thendividing the scrotum in front, at the raphè, formed a sort of vulva out of its two sides. The patient is now, (Jan. 20th,) doing well; the ligatures have separated; his urine has been passed through the wound, and the latter gives promise of speedy healing.

Large Hydrocele, simulating Hernia.

On the 18th Jan., Dr. Horner brought forward a man laboring under a large scrotal tumor, which extended up within the internal abdominal ring. About three inches below the external ring there was a partial contraction in the swelling, and then the tumor enlarged in a conical shape to the bottom of the scrotum. The patient stated that the complaint had existed two years; first showed itself after a strain, and then gradually increased. It had never disappeared. Fluctuation was distinct throughout it; there was no gurgling; coughing created a marked motion in the whole tumor, even to its base, and a careful examination by the candle (transmitted light) showed it to consist of some dark or thickened substance. No light could be seen through the tumor at any point, and placing the patient on his back caused no change in its size. The diagnosis of the consultation was, therefore, hernial protrusion of intestine at the upper part of the tumor, and hydrocele with a thickened tunica vaginalis below. As there was however a possibility of the whole tumor being a hernia, it was decided to open it, layer by layer. This was accordingly done by Dr. Horner, by a careful dissection, until a thickened serous membrane was reached, lying just below a strongly developed cremaster muscle. On making a minute puncture, a small portion of fluid escaped, but it was quite sufficient to relieve the tension of the tumor and render the existence of hydrocele at this point certain. The sac therefore was punctured by a trocar and canula, and fully three pints of dark fluid drawn off, of about the color of a strong infusion of

black tea. The whole tumor then disappeared. Thinking that the hernia might have been returned, the patient was placed in an erect position and directed to cough, but without causing any hernial protrusion. Finding something unusual, and fearing to inject the cavity if it opened or was connected with the belly, the Dr. introduced a long probe, through the canula, through the external ring and through the internal ring, two and a half inches, where its further passage was arrested, thus establishing the fact that the patient labored under a large hydrocele, which following the course of the cord through the inguinal canal, had been arrested by the reflection of the lining of the abdomen, and thus acted on, by the motion of the bowels, in coughing. Lest too violent an inflammation should be created by injecting so large a cavity, the parts were irritated by the pressure of a probe roughly moved around the tunica vaginalis, and the patient was directed to report himself as soon as the fluid collected again.

In connection with the peculiarities of this patient, Dr. Horner stated, that he had only once met with any thing analogous to the condition of parts just explained. This was in a gentleman who had visited the city several years since, in order to place himself under the care of Dr. Thos. Harris, U. S. Navy, now Chief of the Medical Bureau at Washington. This patient also had a large tumor in the scrotum about the size of the present one; but pressure from below readily diminished it one half, and the same effect was produced by placing him in the recumbent posture, the fluid passing up into the left iliac region. Being satisfied that it was a large hydrocele communicating directly with the interior of the pelvis, Dr. Harris punctured it, drew off about half a gallon of serum, and leaving a catheter in the cavity of the tunica vaginalis, induced inflammation without injecting it.

Patients suffering from a bursal tumor in the patella; from stricture of the œsophagus (boy æt. 10,) and from fistula in ano, were also shown and operated on, in the usual way. A singular case of deafness arising from a modification in the shape of the external meatus; a case of very bad hæmorrhoids with prolapsus, and some others, were also awaiting treatment at the close of the hour, and will be reported on a future occasion.

Clinic of Jefferson Medical College. Service of PROFS. MÜTTER and PANCOAST. Report furnished by C. W. Hornor, M. D., Senior Clerk of the Surgical Department.

TRUE ANKYLOSIS OF KNEE.

(Concluded.)

Treatment.—From what I have already told you, it must be obvious that the treatment will vary essentially in our attempts to cure ankylosis. In the true or complete form of the affection, where the union is cartilaginous, bony, or composed of short and dense bands of fibro-cartilaginous, or ligamentous tissue, attempts have been made to establish motion by the application of a machine of sufficient power to break up, either suddenly, or by degrees, the cause of the defect; but invariably have these attempts resulted in a failure to accomplish the rupture of the bond of union, or where this has been effected, in acute inflammation of the part with all its usual effects, and sometimes in the death of the patient. Louvrier, of Paris, is the last of those who advocate this plan of treatment, (which had long before this date been practised by Lafond, Hildanus, and others, in false ankylosis,) but the unfavorable report of the "Academy" relative to his success, will be sufficient to consign his measure "to the tomb of all the Capulets."

In striking contrast with this operation of Louvrier, are those for the same affection introduced by Dr. J. Rhea Barton, of Philadelphia. I do not hesitate to assert, that the age has given birth to nothing more brilliant, more profoundly philosophical, more eminently useful, or better calculated to shed lustre upon our science. Two plans of relieving the deformity from stiff joints have been proposed by Dr. Barton. In one, the establishment of an *artificial joint* is the object in view. In the other, *the removal of a portion of one or more of the bones involved, by which a limb flexed at any angle may be made straight.* That a false joint might be established by first cutting through a bone, and then keeping up motion between its divided ends, was a point fully established by the experiments of different surgeons, especially Chaussier, Köcler, Sir A. Cooper, and Larrey, and also by the success which had followed the excision of joints,

in cases of caries, &c., by Park, Moreau, and others; but Dr. Barton was the first to propose the application of the principle in the treatment of ankylosis. The manner of performing the operation will, of course, vary in each case; in one it may be proper to carry the incision through the original joint; in another through the bone immediately above or below it. In the first case of Dr. Barton's, that of a sailor, in whom the hip joint had been injured by a fall, and which was characterized by great deformity, the latter operation was performed, the femur being sawed through "at the lower part of its cervix, a little above its root." This plan should always be preferred when practicable, especially where the ankylosis has been the result of previous ulceration in the joint, inasmuch as we avoid by it the risk of exciting anew the disease in its original seat. When the operation succeeds, the false joint may resemble, to a certain degree, an original one, not only in its functions, but also in its anatomical characters. The bones, for example, are tipped with cartilage, and covered with a layer of condensed cellular tissue, which strongly resembles synovial membrane; but usually, instead of this, the bones are united to each other by ligamentous matter, so flexible that it yields to the contractions of the different muscles surrounding the joint, and thus the limb becomes subject to the will, and is almost as useful as before the destruction of its original articulation.

But although this operation of Dr. Barton's is one of the most ingenious and beautiful in surgery, it must not be performed in every case, and without deep reflection. In the first place, it is unquestionably a hazardous procedure, and subjects the patient to great danger; and in the second, it is liable to be followed by a return of the defect, bony matter being sooner or later deposited in the connecting medium. I cannot do better, however, than give you the advice of Dr. Barton himself. This operation he states, is justifiable only under the following circumstances, viz:

"When the patient's general health is good, and his constitution is sufficiently strong; when the rigidity is not confined to the soft parts, but is actually occasioned by a consolidation of the joint; where all the muscles and tendons that were essential to the ordinary movements of the former joint are sound, and not incorporated by firm adhesions with the adjacent structure;

where the disease causing the deformity has entirely subsided; where the operation can be performed through the original point of motion, or so near it that the use of most of the tendons and muscles will not be lost; and finally, where the deformity or inconvenience is such as will induce the patient to endure the pain and incur the risk of an operation."

An operation similar in principle to this of Dr. Barton's has been performed, according to Professor Samuel Cooper, by Mr. Anthony White, of London.

The second method of operating proposed by Dr. Barton, is intended for the relief of those cases in which, from the size of the joint, and the shape of the limb, it would be hazardous or impossible to attempt the establishment of an artificial joint. So far it has been limited to operations upon the lower extremities; but in deformities of the upper it would be equally useful. The case operated on by Dr. Barton, a report of which you will find in the American Journal of the Medical Sciences of 1838, was one of bony ankylosis of the knee joint, attended with great angular deformity, the leg forming nearly a right angle with the thigh.

The operation consisted in first exposing the femur just above the patella by a triangular incision, the base of the triangle resting upon the front of the thigh; then removing from it by means of a small saw, a wedge-like piece, and finally, in gradually bringing the limb down, by a double inclined plane, the inclination of which could be varied at pleasure to a straight position, and retaining it there until union took place. In order to protect the popliteal artery, and also to steady the fragments by the interlocking of the asperities of each, the incisions with the saw were not carried entirely through the bone, but terminated within a few lines of its posterior surface. The solution of continuity was then rendered complete by an attempt to bend the bone, which caused, of course, the fracture of that portion which had not been divided with the saw. The operation was perfectly successful, and is precisely similar to the one you have just witnessed.

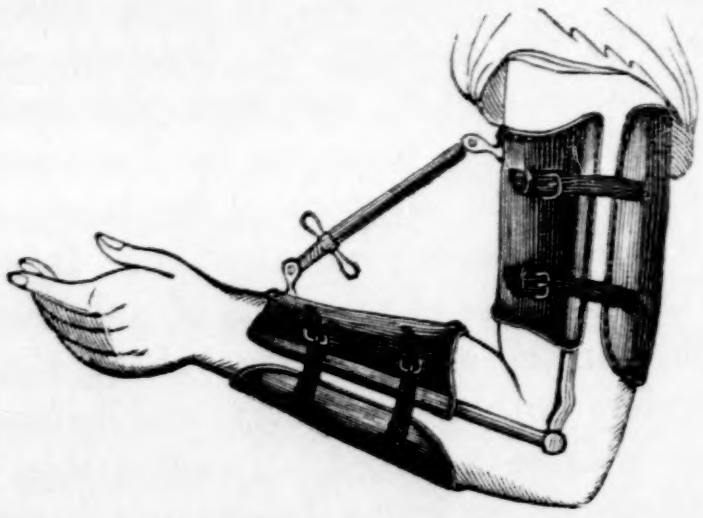
Either of these means is vastly preferable to the *excision of the joint*, advised by some, as well as to the "amputation de complaisance," recommended by certain French surgeons.

Neither excision of the joint nor amputation, two of the most dangerous operations in surgery, should be performed for the removal of what is merely an inconvenience, and my advice is this, refuse to the last any entreaty of the patient, who may urge the performance of them upon you.

In those cases of *false ankylosis* of the knee in which *sublux-ation of the tibia has gone so far as to forbid any attempt to relieve their defect for fear of producing complete luxation, the operation of Dr. Barton might be performed, and the case of William Blakely will, at a subsequent period, be treated in this manner.*

We come next to speak of the treatment of *false ankylosis.* And here, before undertaking the management of the case, or giving our prognosis, it is absolutely essential for the proper remedies to be applied that a correct diagnosis should be formed. When the stiffness of a joint is evidently the result of *rest*, no previous disease of its various constituents having occurred, the difficulty may generally be removed by passive motion, frictions with oleaginous substances, electro-magnetism or galvanism, the vapor bath, fomentations of various kinds, hot mineral baths, especially those of Virginia, and finally, in bad cases, by the use of an instrument similar to that applied in the case before you. When the limb is flexed, the screw must be worked so as to separate one part from the other; when it is straight, the motions of the screw are reversed, so as to approximate them.

Fig. 4.



The disgusting practice of enveloping the part in the hot entrails of a recently slaughtered animal, recommended by Boyer and others,

I need hardly tell you, should not be resorted to, inasmuch as it is productive of no benefit that cannot be obtained by less revolting remedies. (See fig. 4, for a representation of the "screw" applied in a case of false ankylosis of the elbow.) When the joint is rendered motionless by the contraction of the skin after a burn, an ulcer, or an abscess, the treatment must be based upon the principles laid down when I called your attention to the subject of cicatrices; usually, but not universally, a plastic operation is required.

When previous inflammation of the extra-articular tissues, has given rise to stiffness, we must be exceedingly careful in our attempts to give relief, or we may cause the disease to reappear. In all such cases I employ the screw of Stromeyer, along with the remedies usually resorted to in simple stiffness from rest; and there can never be a necessity here for the knife. Should the instrument cause pain or inflammation in the joint, I at once suspend its extending action, and merely employ it as I would a carved splint, to keep the part at rest, while at the same time I order leeches, cold applications, low diet, purging, &c., and never renew extension or flexion, as the case may be, until all traces of inflammatory action have disappeared. The practice of treating such cases by an extending process is by no means a novel procedure; for we find that Hildanus, Lafond, Boyer, and others, employed machines very similar to those made use of by us at the present time. It is true, however, that much has been done by surgeons now in active practice, especially Stromeyer, Lisfranc, Blandin, Amesbury, &c., to bring this method into general notice. In this country, Dr. Detmold, of New York, was the first to recommend it; and since that time it has been extensively employed by my colleague Dr. Pancoast, myself, Dr. Chase, and almost all the surgeons in the land; and I cannot too strongly recommend it to your attention. It is by no means uncommon to find, in cases of this form of ankylosis, deposits of coagulable lymph in the cellular tissue about the joint, which materially interfere with its motions; and before a cure can take place they must be removed. To effect this, friction with unguentum hydrargyri, or iodine, local vapor baths, but, above all, pressure with adhesive straps and a bandage, should be at once employed.

When the ankylosis is dependent upon a contraction of fascia, as we see in certain deformities of the knee, ankle, sole of the foot, elbow, palm of the hand and fingers, although mechanical means may answer, still it is necessary to resort to the knife. My own practice in these cases is, to make the attempt first by mechanical measures alone—the apparatus being modified to suit the case; and should these fail to acomplish the object in three or four weeks, I then divide the fascia. The operation is very simple, and is performed with a small scalpel, which is introduced between the skin and the fascia, just as in the operation for clubfoot, and then turning it upon its edge, it is made to incise the resisting tissue from without inwards. The knife is then withdrawn, the little puncture made in the integuments closed with adhesive plaster, and the extending apparatus applied. Gradual extension may be at once commenced, but we must carefully avoid being in too great haste to effect a cure, for fear of exciting, by our efforts, inflammation. It is also highly important to commence *passive motion* in the course of a few days after the extension is completed, and to *keep up extension* for some weeks after the limb has assumed its natural shape; unless attention is paid to these two points, the deformity will almost to a certainty reappear.

Stiffness occasioned by contractions of the muscles and tendons, the result of rest, paralysis of antagonists, and sloughing, require to be treated with much discrimination. When the contraction is organic, and may be traced to rest of the joint too long continued, passive motion, the usual remedy for rigid joints, and lastly, in obstinate cases, the screw, will generally effect a cure. It is in this form of ankylosis, especially where the knee joint is involved, that tenotomy is so often employed; but the practice indicated is that which you should adopt. First try the screw; should the tendons and muscles resist for any length of time, then their division will be admissible. The operation is precisely similar to that described as the best when it becomes necessary to divide the fascia.

When, on the other hand, paralysis of one set of muscles allows another to distort the joint and produce ankylosis, it is impossible by an operation, or the use of any machine, to restore the part to its normal condition. In such cases we sometimes derive benefit from the application of the remedies supposed to

exert a favorable influence in palsy, such as galvanism, electricity, frictions with veratria and strychnia, cold bathing, &c. In recent cases I have sometimes found advantage from the application of a splint, which prevented the distortion of the limb, while the remedies for the paralysed muscles were being administered. I have also tried in one case of palsy of the extensors of the hand, a contrivance recommended by Dr. Charles Bell, and by its use prevented ankylosis, and enabled the patient to employ the member in his ordinary avocations. This machine was composed of four pieces of steel, of sufficient power to keep the fingers straight, when no effort was made to flex them, but not strong enough to resist the voluntary action of the flexors, placed along each finger, and fastened at one extremity into a bracelet around the wrist, and at the other into a common brass thimble. The fingers being inserted into the thimbles, and the bracelet fastened around the wrist, the springs took the place of the extensor tendons, and a glove being drawn over the whole, it was impossible to detect the appearance of anything unnatural.

When sloughing, or destruction of the tendons or muscles by a wound, is the cause of the ankylosis, it is of course impossible to accomplish a cure. The same may be said of those cases in which the tendons are bound down very firmly by adhesions, the result of previous acute inflammation. When gout, rheumatism, sprains, luxations, synovitis, or disease of the cartilage or bones have given rise to capsular or intra-capsular ankylosis, the treatment is very similar to that already indicated, but we must expect a much more tedious convalescence. The use in these cases, of alkaline baths, is highly recommended by certain of the French surgeons.

Finally, we should always inform the patient, that usually, in false ankylosis, it is necessary to support the limb by mechanical means for some weeks or months after it has attained its proper shape, or until the weakened muscles, fascia and tendons have regained their original tone, or at least are strong enough to prevent subsequent contraction of the part. During this period, we should employ all the best remedies for giving tone and vigor to the weakened parts, such as frictions, cold bathing, electricity, &c.; and in many cases constitutional remedies are highly important.

Pennsylvania Hospital. Medical Wards, service of DR. WOOD.
Reported by MR. J. AITKEN MEIGS.

Wednesday, January 8th.—The following cases were brought before the class by Dr. Wood.

CASE I.—*Partial hemiplegia resulting from arteritis.*

The patient, a man of robust constitution, æt. about 50, came into the house a few days before, complaining of some difficulty of phonation. The tongue, when protruded, evinced a slight tendency to depart from the median line towards the right, and a close inspection of the countenance betrayed a marked inequality in the expression of the two sides. The right half manifested in repose a more decided degree of muscular relaxation than the left, an indication generally accompanying some form of paralysis. When told to move his right arm he did so with difficulty; and the motions of the right leg were also somewhat impaired. Here was evidently partial hemiplegia, traceable undoubtedly to some lesion or disturbance seated in the encephalon, probably on the left side.

Upon further examination, no pulsation whatever could be detected in the radial, brachial, or axillary arteries, either of the right or left arm. When the arm was compressed, however, the veins filled freely and naturally, showing clearly that the want of pulsation was not assignable to a complete obstruction of the arterial vessels. This abnormal condition was confined to the upper extremities entirely, as the arteries of the lower limbs were found to pulsate freely. The left antero-lateral portion of the neck was slightly swollen, and the venous tracts of this region considerably distended. Pulsation was manifest at the root of the carotid of this side, though none could be detected above. Over the right carotid, however, and under the sternal extremity of the right clavicle, the arterial pulse was strong and distinct.

It was evident that between this point and the axillary artery, some impediment must exist, sufficient to break the impulse of the heart, and prevent its being extended down the artery of the arm, but insufficient altogether to obstruct the flow of blood. This impediment was probably in the subclavian artery, as pulsation could be felt in the right carotid.

In like manner there was probably some impediment in the

left subclavian, affecting also in some degree the left carotid, as no pulsation could be felt in the axilla, and only a slight one near the lower extremity of the carotid of that side.

That this impediment was not within the aorta was proved by the active pulsation of that vessel to be felt at the epigastrium, and also by the pulsation of the arteries in the lower extremities.

Percussion over the upper and anterior part of the chest, both over the sternum and on each side of it, was quite clear, showing that no tumor existed in that position, which could interfere with the circulation.

There was a slight roughness of the sounds of the heart when listened to, over that organ, but by no means very distinct. At the sternal extremity of the right clavicle, the double sound was even louder than over the heart, and was attended with a very striking musical tone.

The aneurismal thrill could not be detected.

The double sound could also be heard behind, between the upper portion of the scapulæ.

Upon a view of all the circumstances, Dr. Wood gave it as his opinion, that at some former period *arteritis* had existed, producing the effusion of coagulable lymph within the vessels; and that in this way the subclavians had become partially obstructed, so as altogether to prevent the impulse from the heart being carried into the arteries of the upper extremities.

Not impossibly there might be dilatation in the arch of the aorta, upon the left, or some undiscoverable tumour, pressing upon the veins which return the blood of the left side of the head, thus accounting for the obvious venous tumefaction upon that side, and in some degree explaining the hemiplegic symptoms by the consequent venous congestion of the brain. The deficient supply of blood to the brain through the left carotid might also, possibly, have something to do with these symptoms; as the obvious deficiency of power upon the right side of the body, might result either from pressure on the nervous centres, or want of the requisite power in them from deficiency of blood.

Upon these views as to the patholgy of the case under consideration, Dr. Wood based his treatment. The main indication was, clearly, to cause absorption of the coagulable lymph coating the interior of the vessels. To this end, the great promoters

of absorption, Mercury and Iodine, would be exhibited in moderate doses. Pilul. Hydrarg. gr. i. and Liq. Iodini Comp. gtt. x. were prescribed, each four times per diem.

Case II.—A woman, aged 51, who had entered the House some weeks ago. She had been troubled with incessant vomiting, which had continued three months, causing extreme emaciation, and threatening ultimate death, from interference with the function of nutrition. She had all the symptoms of chronic gastritis; and from the extreme anxiety, and the peculiar color and expression of her countenance, when she first came under notice, suspicion had been entertained of the existence of some carcinomatous affection. The following precription—

℞. Argenti Nitratis, gr. ss.
Pulv. Opii, gr. 1-6th. M.

was immediately administered three times a day, with the happy effect of an entire relief of the symptoms. She had vomited but once since entering the house—a period of three or four weeks. Her appetite has returned, she could easily retain and freely digest her ordinary food, and was obviously gaining flesh.

Case III. The next case presented to the class by Dr. Wood, was an Italian, who had entered the house suffering from a continued pain in the epigastrium, and considerable cough. He had been sick four months; but from his inability to speak the English language, no information whatever could be obtained from him as to his previous condition. His legs were highly œdematous, pitting distinctly and deeply on pressure. When in the horizontal position a general dropsical effusion was apparent, and fluctuation of a liquid in the abdomen was made sensible in the usual way. The intestines distended with flatus, and floating on the top of the water, gave forth a resonant sound on percussion. Effusion had also taken place into the pericardium, as shown by the dulness on percusssion over the thorax. The effusion, however, was slight, as the sounds of the heart, instead of being feeble, as would otherwise have been the case, were natural in the degree of loudness.

Auscultation revealed a murmur of regurgitation during the first sound of the heart, and directly over the mitral valve. From this circumstance, Dr. Wood concluded that the mitral

valve was diseased, and allowed the blood to regurgitate during the ventricular systole. In consequence of this condition of the heart, the circulation was here impeded, and to the congestion of the lungs and of the right side of the heart, and the general venous system thus induced, was undoubtedly assignable the general anasarca under which the patient was laboring. Over the posterior and inferior portion of the right lung, crepitation could be distinctly heard; not the fine crepitant rale of pneumonia, but a sub-crepitation caused probably by the congested state of the pulmonary vessels.

The sputa were bronchitic in character; the urine had not been examined.

The patient was put upon the use of potassæ bi-tartrat. ʒj., to be taken in small doses during the day; and pulv. scillæ grs. ij. every two hours; to be diminished if it occasioned nausea. Cups were directed to be applied to the back of the chest, over the seat of the sub-crepitation.

January 12. The patient walked into the room unsupported and presented himself again to the class. The dropsical effusion had disappeared, the sub-crepitant rale was much less distinct, and he was already convalescent from his secondary affections. The abnormal sounds of the heart, however, still remained.

BIBLIOGRAPHICAL NOTICES.

Transactions of the American Medical Association, instituted 1847. Vol. III. Philadelphia. 1850. pp. 499.

Concluded.

REPORT ON MEDICAL LITERATURE.

This Report, from the pen of Dr. Alfred Stillé, Chairman of the Committee, discusses with marked ability the Medical Journalism of the United States, exposing with candor and directness its defects, while it commends what is valuable and important in the original contributions of American physicians during the past year. The committee claim, we think with justice,

no small degree of merit for our medical periodical literature, and consider American journals, at the present day, as "indispensable to writers upon the practice of medicine and surgery." An appendix to the report contains a list of all original articles of interest published during the year, forming a valuable table for reference, and one which we hope will be continued in future reports.

The remarks of the committee upon the "critical department of the medical journals" are marked by discrimination and good sense, and would be read with profit by that class of writers who figure in this department. The following high tribute is paid to the reviewers, and we shall not call in question its truthfulness:

"The 'Reviews,' as distinguished from the 'Bibliographical Notices," generally present a clear and faithful account of the works to which they relate, with occasional comments; as the opinions of the author and reviewer coincide or diverge. It very rarely happens, in such elaborate analyses, that the pen of criticism appears to be guided by improper feelings, whether of impartiality or dislike. They seem, in the great majority of instanees, to be dictated by a spirit of justice, and that they are so is rendered probable by the striking unanimity of sentiment expressed in various journals respecting the same work. Exceptions to this statement may undoubtedly be discovered, yet we regard it as a fact, no less certain than praiseworthy, that the medical critics of the United States are remarkably independent in thought and expression. They display but little of that tendency so evident in British periodicals, to proportion the eulogy of a book to the reputation of its author, and to frown upon a work, however meritorious, to which an unknown name is attached. In this matter American critics unquestionably feel the influence of liberal institutions, and appear to be all but unconscious of either hopes or fears inspired by the authors whom they judge."

A catalogue of the books published in the United States during the year, accompanies the report, with short notices of each of the *original* works.

This summary of the progress of medical literature during the year, furnishes the committee with a text for some general reflections and suggestions upon the importance of a national literature to the medical character of the United States.

The causes of the imperfections of our native literature are pointed out with a clearness and a felicity of style rarely excelled. Imperfect education, deficient mental training, a vitiated language, and a "debased popular idiom," are mentioned as

prominent obstacles to the attainment of that high excellence to which American medical writers should aspire. The necessity for institutions of learning of a higher grade than any of those which now exist, is thus enforced:

"The true exponents of the literature of an epoch or profession are not the most popular works, but those from which popular works are extracted, those which are fullest of invention and discovery, those to which the historian will afterwards point as the monuments of their time. No argument need be adduced to prove that these can only be created by a system of exceptional culture above, and different from what is suited to the average wants of the profession; that there must be seats of professional learning whither all may resort who have exhausted the ordinary means of instruction and yet thirst for higher knowledge. At present, no such institutions exist in this country; and hence nearly all writers who have adorned the native literature of our science have been compelled to seek abroad the culture which they vainly wished for at home, and, as an inevitable result, to adopt opinions, and habits of expression which have tended to make their works pale copies of transatlantic originals, when they should have been stamped with the characteristics of the American mind. An elevated, distinctive and permanent medical literature cannot, we think, be hoped for until some one of our schools shall adopt a much higher system of instruction than has yet been thought of, and, instead of looking to minor institutions for the measure of its advancement, look upwards only to the sublime purpose of education, receive into its bosom those alone who are fitted by their accomplishments and their ambition to honor the profession, and resolve that the American student shall be perfected on American soil.

On such a purpose, steadily maintained, and supported by every expedient that is calculated to develop and mature the talent of those who enter upon medical pursuits, must the hopes of our professional literature after all repose, and not upon any narrow-minded attachment to American literature for its own sake merely. It is not to be pampered because it is a native growth, but to be fostered because it is good or capable of becoming so. It would ill become us to imitate the people of China and Japan, who pride themselves upon their stunted and effeminate civilization, and look with contempt upon the sciences and arts of the outside barbarians. A feeling of nationality in literature is, within just limits, a mighty stimulus to the production of works which extend the empire of the mind, but, carried beyond a certain point, becomes a high treason to the universal republic of letters, and 'confines to a sect what was meant for mankind.' While, then, every lover of his country must be ambitious of raising to its glory the only imperishable memorial that human skill can construct, a national literature, he ought to remember that the work will crumble of its own weakness, unless its foundations are deeply and securely laid in that knowledge which is of no one time or place, but is the common product of all ages, and of the whole civilized world."

The subject of an international copy-right law in its connection with the present state of American literature, is discussed with ability and perspicuity. Upon the advantage to be derived from such a law the committee remark:

"The benefits of such a law would be incalculable, springing from the one glorious consequence, that through it the thinking and therefore the governing minds of two great nations, common in their origin and language, would be brought directly into contact and fused together, strengthening one another, by communion, rivalry, and example, and would with this redoubled strength reach and maintain with ease the vantage-ground of civilization against all the world besides. Commerce may knit together nations, but only in their material interests, binding them with the bonds of selfishness; but a free intellectual commerce is the noblest of all bonds, for it knits the souls of men.

A law such as would secure the rights which we assume to be absolute and inherent, is perhaps the surest expedient that could be devised for promoting our native literature. Not only would it enable publishers to offer a fair remuneration to our authors, but it would also have the effect of causing a number of foreign works to appear first in this country; and since the sphere of influence presented by the millions of American readers is so far superior to any other, many a foreigner of genius and even of established reputation would speedily be numbered amongst our adopted citizens. Grafted thus with the strongest offshoots of the parent tree, American literature would rapidly attain a degree of luxuriance and fruitfulness, which is quite impossible under the present system of its culture, or rather neglect. But the benefits would be reciprocal; our writers would become English writers, and find an attentive and appreciating audience among a people who even now receive them gladly, and award to those who deserve it no scanty meed of praise."

Our space forbids more extended comments upon this able paper, but we cannot leave it without expressing the high gratification which it has afforded us. Whether viewed as a specimen of elegant composition, or as the vehicle of just and practical views. upon the subject treated of, we would commend it to the consideration of the profession.

REPORT ON PUBLIC HYGIENE.

This report is confined mainly to that department of hygiene having relation to epidemics and diseases, especially "the sources of typhus fever, and the means suited to their extinction." The Chairman, Dr. Joseph M. Smith, of New York, regarding the origin of typhus to be from human excretions, points out, with his usual ability, the kinds and quantities of these matters

concerned in its production. A critical analyisis of the proximate principles present in the pulmonary and cutaneous excretions as revealed by recent experiments, is presented, and to the animal matter in these is ascribed, the idio-miasma or typhus poison. The quantity of this eliminated from the entire amount of matters discharged from the lungs, taken in a given time has been proximately arrived at, by the investigations of Ancell of London. The report thus sums up the results:

"Adopting the chemical views of Liebig, and pursuing his method of research, this gentlemen has ingeniously attempted 'to exhibit the various modes in which the equivalents of the component parts of the *ingesta* are eliminated from the body, and to ascertain the elementary constitution of the solid, fluid, and gaseous compounds into which they are distributed in the *egesta.*' The subject of Mr. Ancell's experiment was a healthy man, who, in twenty-four hours, took as *ingesta* 96 oz., and received, by estimate, into the system by the lungs, stomach, and skin, 32 oz. 23 dwt. 4 grs. of oxygen, making a total of matter received into the body of 129 oz. 3 dwt. 4 grs. The weight of the individual was the same at the end as at the beginning of the experiment. The egesta during the time were found to be fæces 5 oz. 10 dwt.; urine, 42 oz. and matters eliminated from the lungs and skin, consisting of water, carbonic acid, sweat, tears, animal matter, &c., 81 oz. 13 dwt. 4 grs. in all, making a quantity equal in weight to the matters introduced into the system.

The great difference in the amount of the excretions by the lungs and skin, in Mr. Ancell's estimate, and the quantities stated by former experimentalists arises from his bringing into his calculation the amount of oxygen taken into the system through the lungs, stomach and skin, and expelled from the pulmonary and cutaneous surfaces in combination with carbon and hydrogen, forming carbonic acid and water. Subtract the oxygen in question, and the quantity of matters excreted by the lungs and skin is reduced to 48 oz. 14 dwt., a sum differing but little from the estimates given, as before noticed, by Hartman aud Von Gorter.

On carefully analyzing the table in which the results of Mr. Ancell's inquiries are exhibited, it is found that of the 81 oz. 13 dwt. 4 grs. of cutaneous and pulmonary excretions, 42 oz. 13 dwt. 10 grs. consistof water, 9 dwt. of dry materials are found in the secretions of the skin, and consist of *animal matter* 8 dwt., and salts 1 dwt., which added to the *animal matter* exhaled with the pulmonary vapor, give, exclusive of the salts, 11 dwt., 7 grs.: that is, the amount of *animal matter* emitted with the excrementitious discharges through the lungs and skin in twenty-four hours. This amount probably exceeds the usual quantity, and consequently, to avoid exaggeration, we shall assume 10 dwt. as the normal daily average."

The circumstances under which the effete matters of the human body may be productive of typhus, both in private dwellings and public institutions, is a subject of exceeding interest; and is treated by the committee in an instructive manner.

The influence of over-crowded, illy ventilated rooms, occupied by filthy tenants, in the production of typhus, is also forcibly depicted, and the foul agencies thus developed are considered amply sufficient to produce the disease, without resort to the doctrine of specific contagion, although the influence of this cause is not denied in particular cases.

Many other interesting views upon the etiology of typhus are set forth, which our limits will not allow us to notice. The report, so far as it develops the one topic selected by the chairman, is a masterly production, and we have only to regret that the same mind did not take a wider range of inquiry into this neglected department of our science.

Appended to the report is a paper on the "Sanitary condition of Massachusetts," by Dr. Edward Jarvis, a member of the committee. This paper presents us with a history of the public acts of Massachusetts in reference to the sanitary question, showing that State to be in advance of any other in the Confederacy, in the care which she has extended over the physical condition of her people. It is to the untiring energy and perseverance of a few men, amongst whom the name of the writer of this report stands conspicuous, that the enviable position of this State upon the sanitary question, is mainly attributable. This fact should afford encouragement to those interested in other States, to persevere in this labor of science and benevolence.

Dr. Jarvis has instituted a comparison between the mortality of the States of New York and Massachusetts, and between the cities of New York and Boston, as revealed by the registration reports of the two States, which will be found exceedingly interesting to those engaged in such enquiries.

The comparative mortality of the cities and suburban districts of the states, is also discussed, so far as the published reports furnish the data, though it is admitted that as yet these are not sufficiently full to arrive at satisfactory results on this point.

It is inferred, however, from the facts which have been

collected, and from the corroborating testimony of the more accurate and complete returns of mortality in England and Wales, that "life is fostered less successfully in the city than in the country."

The full returns of the mortality in England and Wales, as published in the fifth report of the Registrar General, accompany Dr. Jarvis' paper, and upon them he has made some observations and comparisons which will be found valuable to the statistical student. The report closes with the following sentiment in regard to the importance of hygiene as a branch of medical science.

> The few facts that are known are, to this great subject, like the few pieces of ore or coal that the proprietor finds in an unexplored field. They indicate that much more is to be discovered, and the importance of farther examination. A sanitary survey of this and of every other State would, I fear, demonstrate an inequality in the distribution of life in various places and among various classes of people, such as few either of the philanthropists or political economists now suspect. And, when these facts shall be demonstrated, the way will be open to the discovery of many of the causes of disease and death, some of which certainly, many of which probably, can be removed, and the health of man thereby be increased and his life prolonged.

With this view we fully accord, and trust that whatever changes the American Medical Association may make in the arrangements of its committees, or in the features of its organization, it will still retain the subject of public hygiene, as one deserving of an annual examination by a competent committee.

"Report on the Hygienic characteristics of New Orleans, by J. C. Simonds, M. D.," is the title of another paper appended to the report on Public Hygiene.

Dr. Simonds has presented many facts of interest in regard to the hygienic condition of New Orleans, tending to develope sources of the ill health which prevails there, and which it would be wise in his fellow-citizens seriously to ponder.

The drainage of the city is represented as exceedingly defective, although measures are in progress which it is believed will remedy this evil in the course of a few years.

The supply of water is shamefully restricted, being "*monopolized by a close corporation* dispensing it very sparingly and at most exorbitant rates, which have this year been increased over

twenty-eight per cent. to families." The poor man, we are told, pays the same price for this necessary of life, as the wealthy citizen, though he consumes less. Dr. Simonds knows of but ONE *free hydrant*, and that in a location that renders it of but little use! Well may Dr. S. exclaim—

"How much longer our citizens will submit to this misused monopoly cannot be determined; but that they have a right, paramount to any restrictions that may be imposed by a legislature, to procure for themselves an abundant supply of this necessary of life, scarcely admits of question."

In making statistical tables of deaths, in New Orleans, Dr. S. has experienced the common difficulty of defective returns, based upon the reports of sextons, and false or ambiguous certificates from physicians of all classes, both real and pretended. He has, however, presented the profession with some novel and interesting views on the principles of classification of diseases, which are well worthy the attention of statisticians.

The mortuatory tables which accompany the report, evince on the part of the writer great care and industry, although we fear the labor bestowed on their preparation, will yield him no other return than the consciousness of having performed a public duty, and the thanks of that small band of his professional brethren who are devoted to similar pursuits. The crowd bestow no praise on such "dry details."

Report on Adulterated Drugs, Medicines, and Chemicals, &c.
Dr. R. M. Huston, *Chairman.*

The important subject entrusted to this Committee, has been faithfully investigated, and a mass of interesting facts, which would probably not otherwise have been revealed, has been the consequence. The inquiry is divided into two sections—the first relating to the adulterations of foreign, and the second to that of domestic drugs.

The late Act of Congress, in regard to the former, is said by the Committee to have been productive of much benefit—both by the actual prevention of dishonest traffic, and by stamping a practice which was once carried on with impunity, with the seal of public condemnation.

In regard to "home adulteration," which it has been feared by

some, was on the increase, since the late passage of the law above referred to, the Committee, after special investigation, inform us, that in their opinion "there does not appear to be any *increase*, but probably a *diminution* in the domestic sophistication of drugs."

The grounds upon which this assertion is made, will be found interesting to enquirers upon the subject, and the Committee deserve much credit for their industry in collecting the facts.

Many articles still subject to adulteration, are reported upon, and the profession are thus placed on their guard in relation to them.

The following are the conclusions arrived at by the Committee on this branch of the subject:

"1st. That the wholesale druggists in the large cities, equally in the South and West as in the Eastern States, who are not specially engaged in selling nostrums, either as proprietors or agents, conduct their business on fair and honorable principles. As a general rule, they buy their choice chemicals from those who manufacture them, and either import other articles, or get them directly from those who do, and are always disposed to supply good articles to customers who are willing to pay a remunerating price. At the same time, many of this class keep inferior articles, which they dispose of for a corresponding price to physicians and storekeepers who insist on buying at reduced rates.

2d. That the inferior and adulterated drugs are chiefly disposed of in the southern and western portions of the United States—to the physicians and people residing in the small towns and villages, and sparsely populated districts. That in the large cities, particularly in the Atlantic States, bad drugs are, as a very general rule, dispensed only by inferior apothecaries."

The report closes with some important recommendations in regard to the sophistication and sale of spurious drugs at home, which are specially addressed to medical societies.

Report on Indigenous Medical Botany.

This report from the pen of Dr. Eli Ives, of New Haven, is confined to the author's personal experience of the virtues of a few individual plants, not before enumerated by the preceding Committees.

The medical profession are perhaps more indebted to Dr. Ives, than any other living physician, for his researches into the medicinal virtues of native plants, and hence this report,

restricted as it is, will be found to possess much practical interest. A simple enumeration of the articles mentioned would carry us beyond our already extended limits, and we can, therefore, only commend the paper of Dr. Ives to the general perusal of physicians.

Report of the Committee on Surgery.

This paper occupies sixty pages of the Transactions, and though confined to American Surgery, takes a more extended retrospect than a single year would furnish. It is from the pen of the venerable President of the Association.

The subject of Anæsthesia occupies a prominent place in the report, and a full account is given of the experience of American surgeons within the year, both as it relates to the value of anæsthetic agents in general, and to the relative value of particular articles. Without reviewing the facts here, we can merely state that the result of the enquiries of the Committee fully confirms previous experience, as to the great importance of this new class of agents in the practice of Surgery, although a difference of opinion still exists, as to which of the articles employed preference should be given.

The subject of Cancerous Tumors, referred by a previous Committee to the consideration of this, is fully discussed, and a mass of valuable facts are spread out before the profession, touching the question of the curability of cancer, whether by operative procedures, or by remedial measures.

The results, so far as operations are concerned, are, we think, sufficiently discouraging, to deter surgeons from recommending extirpation of cancerous tumors of the breast, and other really malignant growths, as a means of cure. We would gladly transfer to our pages the experience of some of the most eminent surgeons of the country upon this point; but we must be content with recommending those interested in the inquiry to consult the volume for themselves. The subjects of Aneurism, Injuries of the Head, Gun-shot Wounds, Fractures, Hernia, Lithotomy, Ovariotomy, Excision of the Uterus, Cataract, with a variety of other facts collected by the Committee, form altogether a valuable compend of the present state of American Surgery. From a review of this able paper, we fear that the rage for operating

which prevails to no small extent, over the surgical world, to the injury of the cause of true science, is still too rife amongst American surgeons; and if we should venture a criticism on the report before us, it would be that this spirit is not sufficiently discouraged by the Committee.

With these remarks we must bring our notice of the Transactions to a close. Their strictly national character, and the strong desire that we feel to present a fair analysis of them to our readers, will, we trust, prove a sufficient apology for the length we have given to their notice. That they are, as a whole, highly creditable to the Association, and that they manifest an evident progress in Medical Science in our country, will, we think, be admitted by every candid reader. The reports of the various Committees are thorough and practical, and the spirit with which the proceedings recorded in the volume appear to have been conducted, augurs well for the future prosperity and usefulness of the Association.

A Treatise on the Diseases and Surgical Operations of the MOUTH, *and parts adjacent: with Notes of Interesting Cases, ancient and modern.* By M. JOURDAIN, Dentist and Member of the College of Surgery. *Translated from the last French Edition.* Philadelphia, Lindsay & Blakiston, 1851.

This is the title of a royal octavo volume of 444 pages, no less creditable as an increase to the literature of American Dental Surgery, than liberal and tasteful in the mechanical getting up of the book.

Mr. Jourdain's work embraces, in its minute details, both as regards the diseases of which it treats, and the careful report of numerous illustrating cases, a valuable and interesting amount of knowledge to the dentist, as also to the medical practitioner. It is one peculiarly needed, inasmuch as its matter is for the most part confined to the disturbances arising *from* the teeth, rather than *in* them, and involves a correct knowledge of the general principles of surgery and pathology, too frequently overlooked in treating of *specialities*, and not less in the management of an unhealthy mouth.

The translator of the work has modestly omitted giving his name to the public, and hence, perhaps, we may with the greater

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freedom commend the talent and good judgment with which he has performed his task, not merely rendering the thoughts of the French writer into good English, but—*currente calamo*—reviewing or correcting his errors in the most important feature of the work, with such discrimination as to preclude the necessity of that duty being attempted after him. And yet, the book in its present English dress, has claims to our notice not less than to our thanks, for it is a better work than the original, and especially where the translator has made most free in pruning and adapting "*by suitable additions and corrections to the present wants of the dental profession.*"

Mr. Jourdain, however, gave evidences of extraordinary industry and minute observation of the anatomy and sympathetic organization of the mouth; and especially, considering the period at which he wrote, (about 1770,) his work must be regarded as evincing scientific views of pathology and hygiene, as applicable to the exercise of his profession, far in advance of his contemporaries. The treatment of his reported cases, proves him to have been a surgeon in whose practice as a *Dentist* we might now properly condemn the want of a due estimate of the value of the teeth, if we may judge, for instance, by the governing rule suggested in a case of tumor, where he was not suffered to operate, but where he states, that if allowed, "*I should have removed all the teeth, good and bad*, involved in the tumor."—There is great probability that the sacrifice of the *bad* ones would have proved that they alone were so involved.

With great and commendable frankness, Mr. Jourdain acknowledges that he has freely selected from the experience of previous writers, and "after all," that it is not so easy a duty as some persons think, to "make books *from books*": had he said not so easy to make *good* books from *bad* ones, the remark would have been still more correct and appropriate. But his readers of the present day, whilst giving him credit for the research and honest confession of the use made of it, would have preferred a more original work from a man evidently capable of deep thought and sound investigation.

We may safely recommend the volume as worthy of both purchase and perusal.

E. B. G.

1. *Introductory to the Course of Lectures on the Theory and Practice of Medicine, in the University of Pennsylvania.* By GEORGE B. WOOD, M. D. Delivered October 11th, 1850.
2. *Impediments to the Study of Medicine; a Lecture, introductory to the Course of Practice of Medicine.* By J. K. MITCHELL, M. D., Professor in the Jefferson Medical College. Delivered the 18th of November, 1850.
3. *Lecture Introductory to the Course of Materia Medica and Pharmacy, in the University of Pennsylvania.* By JOSEPH CARSON, M. D., Professor of Materia Medica and Pharmacy. Delivered October 10, 1850.
4. *An Introductory Lecture, delivered at the opening of the thirty-first Session of the Medical College of Ohio, November 4th,* 1850. By JOHN BELL, M. D., Professor of the Theory and Practice of Medicine.
5. *An Introductory Lecture, preliminary to a Course on the Institutes of Medicine, delivered on the 9th of October,* 1850, *before the Medical Class of the University of Pennsylvania.* By SAMUEL JACKSON, M. D., Professor of the Institutes of Medicine.
6. *An Introductory Address to the Class of the Medical Department of Pennsylvania College, Session* 1850—51. By WASHINGTON L. ATLEE, M. D., Professor of Medical Chemistry.
7. *Introductory Address delivered before the Class of the Medical Department of the Saint Louis University, Session of* 1850—51. By M. M. PALLEN, M. D., Professor of Obstetrics and the Diseases of Women and Children.

We are indebted to Professors Wood, Mitchell, Carson, Jackson, Bell, Atlee and Pallen, for copies of their Introductory Lectures delivered at the opening of the current sessions in their respective schools. All of these addresses are well-written and instructive contributions to our medical literature; several of them have a special present interest, from recent changes in the professional position of the lecturers.

That Dr. WOOD'S Introductory to his first Course on the Theory and Practice of Medicine in the University of Pennsylvania, has been received with lively interest by all who are connected

with American medicine, we need hardly say. The importance of the chair, the distinguished reputations which have already illustrated it, and the high anticipations formed from Dr. Wood's career in another station, could hardly fail to make him on such an occasion, the 'observed of observers.' We are sure our readers will be gratified by having placed before them the personal allusions with which the new professor assumed the honored mantle, to which all American physicians of every interest and association, must look with something of attachment and of veneration.

"You are aware that the professorship I now fill became vacant soon after the close of the last session, by the resignation of Dr. Chapman, whose failing strength induced him to withdraw from its onerous duties, after a career of honor and usefulness, never surpassed in the medical history of this country. In the movements which afterwards took place in reference to the filling of the vacancy, I was quite passive. An honorable ambition might suggest that the Professorship of the Practice, occupied as it had been by men so illustrious, held a somewhat more elevated place in public estimation than that of Materia Medica; and the consideration was not without weight, that in the former a new field was opened, calculated to stimulate energies and industry, which, without some fresh excitement, might perhaps slumber in the hebetude of increasing age. On the other hand, however, were the reflections, that with my existing duties I was quite familiar; that to fulfil them it was only necessary to keep up with the advancing tide of knowledge; that rest rather than increased labor was suited to my time of life, or at least soon would be; and that, in making a change, I might be abandoning a position to which sufficient trial had shown me to be in some degree adequate, for another in which I might not prove equally useful, or give equal satisfaction. The motives for a change were insufficient to outweigh those of a contrary character; and having, therefore, no personal ends to answer, I had no other wish, in reference to the future arrangements, than that they should be such as would conduce to the advantages of the school.

To my colleagues and to all others concerned, when interrogated on the subject, I freely made known these sentiments; declaring truly that I was personally indifferent whether, in the approaching election, another or myself should be chosen, that I was desirous only that the true interests of the school should be consulted, and that, not being the best judge of my own qualifications, I should take no step in the matter, but leave it altogether to the wisdom of those in whose charge the Institution was placed. Should they believe that I could best serve the school in the department of Materia Medica, I would cheerfully persevere in my former path of labor, and cordially greet any new colleague whom the Trustees might elect to the vacant professorship. Should it, on the contrary, be thought that I could do better service in the practical chair, I would

acquiesce in the decision, and exert myself to the extent of my capacity, to fulfil its various and burthensome requisitions.

Under these circumstances, the choice, as you are aware, fell on myself; and I should not be doing justice to my feelings on the occasion, if I did not confess to you that this mark of confidence was in the highest degree gratifying to me, though involving much of labor, of sacrifice, and of misgiving on my part.

And now, gentlemen, you will, I hope, be disposed to judge me leniently in my new sphere of duty; and, should the result of my efforts fall short of your expectations, or of the just demands of the position, you will at least acquit me of undue presumption.

There is another consideration, which, in justice to myself, I must beg of you to bear in mind, in forming your estimate of the ensuing course of lectures. You will necessarily compare them with the past. Even those of you who have not enjoyed the opportunity of listening to my predecessors, have yet heard, and still hear the prolonged echo of their praises, and have in your own mind formed a standard of excellence, in connexion with this chair, by which you will naturally be disposed to judge its present occupant. But remember, gentlemen, that these were men the most eminent in their profession whom this country has produced, whose names are set like priceless gems in our history, and who, standing in the morning light of medical teaching on this continent, loom in magnificent hues on your admiring vision. Drs. Morgan, Kuhn, Rush, Barton, and Chapman, have successively held the professorship of the Theory and Practice of Medicine in this school. Here, in this very spot, is enthroned the reputation of these distinguished men, and receives willing homage from the young thronging aspirations that surround it. A successor approaches the place illuminated by such great recollections, and is for the moment invested, in the imagination of the spectator, with the lingering effulgence. You will admit with me, gentlemen, that this is a most trying position. In the cold presence of reality, the unsubstantial glory soon fades away, and the new-comer stands in the severe outlines of truth, with no coloring from the rainbow hues of fancy; nay, dimmed and beclouded to eyes that had been dazzled by the previous brightness. This trial I am now to undergo. May I not ask of you, gentlemen, to close your eyes firmly on the past; and, in judging of my efforts, if indisposed to a partial indulgence, at least to view them in their own true light, and not through the medium of an impairing contrast."

The subject proper of Dr. Wood's address, is an introduction to his course—the Theory and Practice of Medicine. Its importance and its difficulties are depicted; a general outline of the lecturer's plan for the conduct of his course is sketched, with an allusion to his resources for making it as 'demonstrative as possible;' and the lecture is concluded with an eloquent and feeling tribute to the merits of his immediate predecessor.

Dr. J. K. Mitchell's address, now before us, is an admirable

exposition of 'the impediments to the study of Medicine,'—which we should desire to see placed in the hands of every person about to enter upon it. Dr. Mitchell takes the highest ground on the subject of the preliminary qualifications which should be exacted from the student of medicine; and, while expressing a generous sympathy with the enterprise and perseverance, which, in spite of early deficiencies, will sometimes deservedly attain the honors of our profession, he offers a forcible and earnest protest against "encouraging persons to enter upon the study of medicine without suitable preliminary learning." He well observes that

"In the earlier periods of our national existence, this evil was a necessary consequence of the state of society. Refined and well-educated men could not often consent to bury themselves in the woods to earn amidst hardships and privations a scanty subsistence. The higher qualities of the profession could not be often used, and were more seldom properly appreciated. Indeed, few students of medicine could find means of obtaining a good preliminary education, or of following out in foreign universities a complete system of instruction. Hence society was compelled to take the best accessible adviser, and habit reconciled it to what was a necessary evil. *It is so no longer! &c. &c.*"

This well-timed appeal in favor of a high standard of pre-requisites for the study of medicine, is the opening chapter to an excellent volume of general advice to the student about to engage in the pursuit of professional knowledge. Altogether, Dr. Mitchell's Introductory will add not a little to his reputation as a sound and eloquent teacher.

The maiden effort of Dr. CARSON, in the chair to which he has lately been elevated with a unanimity of approbation not often elicited, is in every way equal to the anticipations of his friends and worthy of his new position. A learned and judicious sketch of the history of his department—the Materia Medica—is appropriately followed by an impressive and eloquent delineation of its just claims to importance among the branches of medicine. We give a brief extract from the conclusion of the lecture, as a specimen of the very pleasing and elegant style of the new professor.

"Besides the efficiency communicated by a thorough knowledge of the Materia Medica, in all its details and bearings, there are other points of in view which it must be regarded. It is inseparable from the possession of general information.

The history of drugs is in a measure associated with the history of nations; as objects of care and culture they are identified with the races of the country in which they are produced: thus pepper and cubebs are associated with the habits and mode of life of the Malays, rhubarb in like manner with the Tartars, senna with the Arabs, opium with the Turks, and camphor with the Chinese. Among civilized nations the trade in them has occasioned struggles and encounters which constitute a portion of the revolutionary annals of the world. The discovery and supremacy of the Portuguese in India, their trade in costly gums, spices, and valuable products, the cession to the Dutch and their monopoly, and the downfall of Holland's power before the giant arm of England, or the exclusive traffic of the Spaniards in the products of the South American Colonies and subsequent failure to maintain it, from internal political resistance and foreign aggression, will serve as an illustration of the association referred to. From histories of discoveries and conquest, from books of travels, are to be gleaned valuable facts pertinent to the subject."

Of another maiden effort, with which we have been favored, we may say, that it has been anticipated with the same friendly interest, and welcomed with the same satisfaction, as the last. Dr. BELL bore with him to the new and distant field of labor to which he has been called, the warm wishes of a large circle of friends and of the profession generally, in Philadelphia, and, while we greatly regret his loss here, we look forward with pleasure to the prospect of his success and increased usefulness elsewhere. The address now before us was delivered on the fourth of November, last, in Cincinnati, on the occasion of Dr. Bell's assuming the chair of Theory and Practice of Medicine, in the Medical College of Ohio. It is a spirited and vigorous production, graced with a fancy and animation of style, which we were not entirely prepared for—and, we need hardly add, distinguished by an elevated tone on the subject of medical education. Such language as the following, is, indeed, of the right stamp:

"It should be the aim of the different schools of the country, in a spirit of generous rivalry, to raise the standard while increasing the means of medical education. They must carefully reject all the expedients to swell the numbers of their classes, which smack of the petty, and not always conscientious trafficker, rather than the elevation of true science, and the sensitiveness of refined literature. Encouragements held out to the illiterate, the unstable, and it may be the more unworthy still, to study medicine, are premiums given to ignorance and indolence. Many a good mechanic and thrifty farmer are lost in making them bad doctors. Genius requires no such hot-bed culture. It is a vigorous plant and will grow in a scanty soil and a bleak atmosphere, and bear fruit under an ungenial sun. It will show itself soon enough to insure all needful aid,

without its being debased by ostentatious and selfish patronage and eleemosynary support."

Dr. JACKSON'S Introductory is characterized by the freshness of thought and language, and the elevated earnestness of strain, with which we have been so often attracted and instructed in his occasional addresses. The topics of his present discourse are —"the evidences that prove conclusively the existence of order and laws in Physiology and Medicine, as well established as in the positive sciences." An eloquent and just picture is presented of the pretensions of medicine to the title of an exact science—a picture which recalled to us another of the same subject by the same hand, not less eloquent, but more discouraging, upon which we had occasion to comment several years ago.* Lectures like the present are, we think, of the best tendency. They inspire the student with the enthusiasm for his profession, which is the only basis of success and usefulness; and, notwithstanding a redundancy of technicality, which is perhaps out of place on such an occasion, Dr. Jackson's Introductory strikes us as being in the happiest style of this kind of effort.

From the Pennsylvania College, we have to acknowledge the receipt of the Introductory of Dr. W. L. ATLEE, Professor of Medical Chemistry—a well-conceived and well-written address, devoted to the unpretending, but appropriate subjects connected with the scholastic course of medical students. We have seen no better manual of advice suitable to the occasion.

Dr. PALLEN'S Introductory, delivered before the Medical Class of the Saint Louis University, is a very striking and thoughtful production on the true value of observation in Medicine, from which we should desire to extract largely, but for the length which this article has reached. We cordially recommend it as an address well worthy of close perusal.

In closing our notices of the Introductories of the present season, we take the occasion to express our regret at not having been favored with a larger number of these addresses, from other schools than those of Philadelphia. It is our desire to maintain

* Dr. Jackson's Introductory, delivered November, 1841.

the Examiner in every respect free from local bias or subserviency to sectional interests; and with this view, we may here remark, that we should be happy to present *clinical reports* from schools at a distance that may be disposed to send them to us. Published in a city and state eminently central in situation, and *national* in feeling, the Examiner will, we trust, bear this character in its relations to American medicine.

The Medical Student's Guide in Extracting Teeth: with numerous cases in the Surgical branch of Dentistry; with illustrations. By S. S. Hornor, Practical Dentist. Philadelphia. Lindsay & Blakiston, 1851.

This little manual, which the author tells us is intended for the medical student more especially, contains much practical information that is valuable. It will be found particularly useful to country practitioners, upon whom the duty of extracting teeth very often devolves. It contains a description of the indispensable instruments, and their mode of application, together with numerous cases illustrative of the various operations. We recommend it cordially to those for whose use it was prepared.

THE MEDICAL EXAMINER.

PHILADELPHIA, FEBRUARY, 1851.

AMERICAN MEDICAL ASSOCIATION.

The Committee of Arrangements request all Societies and Medical Institutions authorized to send delegates, to forward a correct list of those selected to attend the next annual meeting, to the Secretary, Dr. H. W. De Saussure, at Charleston, S. C., on, or before the first day of April.

In consequence of the resignation of Dr. Stillé, one of the Secretaries, from ill health, all communications intended for the next meeting of the Association, must be addressed to the remaining Secretary, Dr. H. W. De Saussure, Charleston S. C.

The fourth Annual Meeting of the American Medical Association, will be held at Charleston, S. C., on the second Tuesday of May next.—*Charleston Med. Jour. and Review.*

RANKING'S ABSTRACT FOR JANUARY, 1851.

We have received the English copy of the above work simultaneously with the American reprint, which the publishers, Messrs. Lindsay & Blakiston, have laid before their subscribers with most commendable dispatch, notwithstanding the large number of illustrations which accompany it.

THE STETHOSCOPE AND VIRGINIA MEDICAL GAZETTE.

We welcome, with great pleasure, the appearance of a new Medical Journal, under the above title, in Richmond, Va., edited by Dr. P. Claiborne Gooch. From the spirit and ability which are displayed in the first number, we anticipate an interesting addition to our list of exchanges, as well as a very agreeable organ of communication with many valued friends in the Profession of Virginia.

THE PHILADELPHIA LANCET,

Is the name of a new bi-monthly which has just been issued, and the first two numbers of which we have received. It seems to be conducted with spirit, and the editor declares his determination to wage war upon quackery in all its shapes, to oppose all reverence for men and cliques, and to furnish to his readers a condensed account of all that is new and valuable in the profession. We wish him all success.

The *St. Louis Probe* has ceased to exist. The editors have discovered that there is neither money nor fame to be gained in conducting a medical monthly. The Probe speaks *feelingly*.

TO A NEIGHBORING CORRESPONDENT.

We had received, and placed on file for insertion, a communication from a neighboring correspondent; but as he has sent it to another journal, which has published it, of course it cannot appear in this. Some of our readers, perhaps, are not aware of the understanding in these matters, that no communication should be sent to more than one journal, unless the first should decline to insert it.

SYDENHAM SOCIETY OF LONDON.

We are requested to state that it is no longer practicable to supply the books of the *first*, *second* and *third* years issued by the Sydenham Society.

RICORD'S ILLUSTRATIONS OF VENEREAL DISEASE.

We have received from the publisher, Mr. A. Hart, a copy of the admirable Illustrations of Syphilitic disease, by P. Ricord, D. M. P., translated by Dr. T. F. Betton, and arranged by Dr. P. B. Goddard. We regret that the crowded state of our pages prevents us from giving, at present, more than this meagre announcement of the issue of this valuable work. At a future day we hope to do it justice. In the meantime, we can only say that these "illustrations" exceed anything of the kind that has ever appeared in this country as regards fidelity and beauty of execution.

The grand jury acting for the city and county of Philadelphia, have found a true bill of involuntary manslaughter, against Messrs. Chamberlain and McFadden, a druggist and his assistant, of this city, for causing the death of a patient by the administration of Sulph. of Morphia, instead of Sulphate of Quinine.

Although the lesson will be a bitter one to those involved, we trust it will not be without good results to many others who are grossly careless in compounding the prescriptions of physicians. In this case the prescription was written in a clear and legible hand, and the assistant on being asked to show what he had put up, produced the bottle containing *Sulphate of Morphia !*

HONORS TO MEDICAL MEN IN ENGLAND.

The honor of the order of *Bath* has been conferred on the following named medical gentlemen, in testimonial of their distinguished services: Sir W. Burnett, M. D.; Sir James McGrigor, M. D.; James Thompson, Esq., to be Knights Commanders of Bath. The following "*Companions of the order of Bath:*" Henry Franklin, Esq.; Jas. French, M. D.; Sir J. R. Grant, M. D.; J. Gunning, Esq.; R. P. Hyllyar, Esq.; J. R. Hume, M. D.; Sir J. Liddell, M. D.; D. Mc Arthur, M. D.; B. W. Macleod, M. D.; Sir G. Magrath, M. D.; B. F. Outram, M. D.; C. Renny, Esq.; Sir J. Richardson, M. D.; C. D. Straker, M. D.; Sir J. Webb; S. Woolriche, Esq.; J. Wylie, M. D.

The honor of Knighthood has recently been conferred on three distinguished British physicians; Dr. (now Sir) Robert Carswell, Physician to the King of the Belgians; Dr. (now Sir) Charles Hastings, the founder and late President of the Provincial Medical and Surgical Association; and Dr. (now Sir) B. F. Outram, C. B., Retired Inspector of Hospitals and Fleets.

We would like to see some share of the honors that are so freely lavished upon the officers of the Line, fall to the lot of the Medical officers in both our own services. In the Army, assimilated rank has been conferred upon the Medical Staff by an act of Congress, but in the Navy, they are battling still for the mere outward show of rank which the Line would fain deprive them of. If the services of gentlemen of education and refinement are desirable, (and in this respect our medical officers will compare with any in the world,) let them at least receive the courtesies due to them. They ask no more.

Medical News.

The French Codex.—The Academy of Medicine is about to decide on the new remedies, which have been found useful, with the view to assign to such as are entitled to it, a place in the Pharmacopœia. It should be noticed, that no secret remedies can be sold in France, unless the formula has been submitted to the Minister of Commerce and Agriculture, who generally refers the matter to the Academy of Medicine, whose decision is invariably followed.

A good hit at Homœopathy.—Professor J. K. Mitchell, in his late Introductory, disposes of Homœopathy thus wittily and aptly:—A Physician educated in Philadelphia, says the Doctor, but who lapsed through a proclivous nature into Homœopathy, came to me once for a motto for a book which he was preparing on Homœopathy. As he usually consulted me when himself sick, and yet gave his microscopic doses to others, I felt no reluctance to give him a blow; so I said that once when a ranting lover on the stage cried out to his mistress, "My wound is great because 'tis small"—the witty Duke of Buckingham added from a side box—"Then 't had been greater were it none at all." Now, Doctor, said I, you can put that together thus—

> "My Physic's great because 'tis small,
> And would be greater were it none at all."

That is the whole argument of homœopathy in a couplet.

Death of a Distinguished Physician.—Dr. Royer Collard, Professor of Hygiene, at the Faculty of Medicine at Paris, died in that city in December last, at the early age of forty-seven.

John. S. Cameron, M. D., assistant Physician of the Marine Hospital, Staten Island, has fallen a victim to the typhus fever which prevails to a great extent among the newly arrived emigrants there.

RECORD OF MEDICAL SCIENCE.

PATHOLOGY AND PRACTICE OF MEDICINE.

THE STETHOMETER: *An instrument for facilitating diagnosis, by measuring the difference in the mobility of opposite sides of the chest.* By RICHARD QUAIN, M.D., Assistant-Physician to the Hospital for Diseases of the Chest at Brompton, etc.

With a view to a more accurate examination of the movements of the walls of the chest, than can be detected by the unassisted eye, Dr. Quain has introduced the instrument about to be described.

DESCRIPTION. The little instrument (see fig. 1*) consists of a flat case, not unlike a watch case; and on its upper surface is a graduated dial and an index, which stands at a maximum number, that may be considered a "zero." This case contains a very simple movement, by means of which the index can be acted on. A silk cord, which may be of a sufficient length to surround one-half, or the whole circumference of the chest, passes through an aperture in one side of the case. This cord acts on the index. When the cord is drawn out, or extended for the space of one quarter of an inch, it will be observed that the point of the index will once traverse the circumference of the graduated dial. In other words when the index has gone once round, it shows that the cord has been extended one fourth of an inch. It will be further seen, that the dial is graduated, or divided, into fifty equal parts. Each of these parts is, therefore, equal to the fiftieth part of a quarter of an inch; that is, to the 1-200th of an inch.† The index is further capable of going round a second time, on an additional quarter inch of the cord being drawn out. Hence, two revolutions of the index are equal to half an inch of movement—an extent of motion sufficient for all practical purposes. The pedestal and circular foot, shown in the same figure will be subsequently referred to.

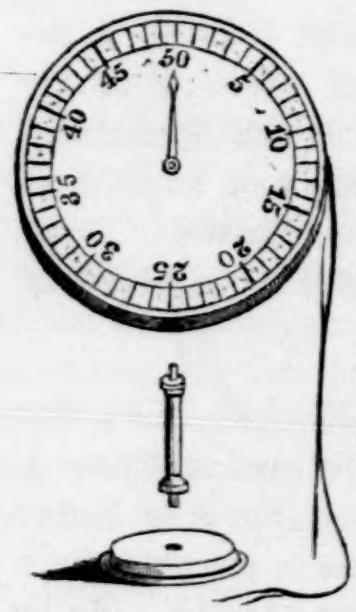

Fig. 1.

MODE OF APPLICATION. It is quite evident, that if the instrument be so placed that extension be made on the cord, the amount of the extension will be shown by the movement of the index on the dial. For example (as in fig. 2) if the instrument is laid flat on the spine, and held in its place by the first and second fingers of the left hand, whilst the cord is carried round the chest, and pressed on one of the ribs, or the sternum, by the fingers of the right hand, then, when the individual un-

* The instrument is reduced in this sketch to half size.

† In making and recording observations with this instrument, I am in the habit of expressing a fact thus: right apex, 30; left, 15. It will be understood that the motion is as 15 to 30, without reference to these figures being eighths, fiftieths, or two hundredths.

der examination expands the chest during inspiration, the amount of expansion will be communicated to the cord, and thus indicated on the dial. The cord may then be directed around the opposite side of the chest, and thus will be at once seen any difference which exists in the relative mobility of the two at the point under examination. It will, of course, be absolutely necessary in every examination, such as this, that corresponding parts of the chest be compared. For all useful purposes it may be said, that the movements of the opposite sides of the chest, in health, are identical—the difference which exists over the region of the heart, at the left side, is too immaterial to interfere with practical conclusions. The instrument may be applied to any part of the chest in the mode here described. In figure 3 it is shown as applied on the sternum, and beneath one of the clavicles. The latter position is one of considerable importance, from its connexion with the deposition of tubercle towards the summit of the lung. I find that on applying the instrument here the cord may, in this instance, be directed towards the arm more conveniently than in any other direction, as shown by the black line, and pressed against a point near the insertion of the deltoid muscle. The cord may or be directed downwards, or outwards, and upwards, or inwards, (as shown by the dotted lines,) and retained on any fixed point. Nor, as is evident, need this point be a part of the body. It may be on the bed, or on a chair, etc., always providing that the direction of the cord be such as to receive the impression of the movement of the part of the body under examination, and that its position be symmetrical at both sides.

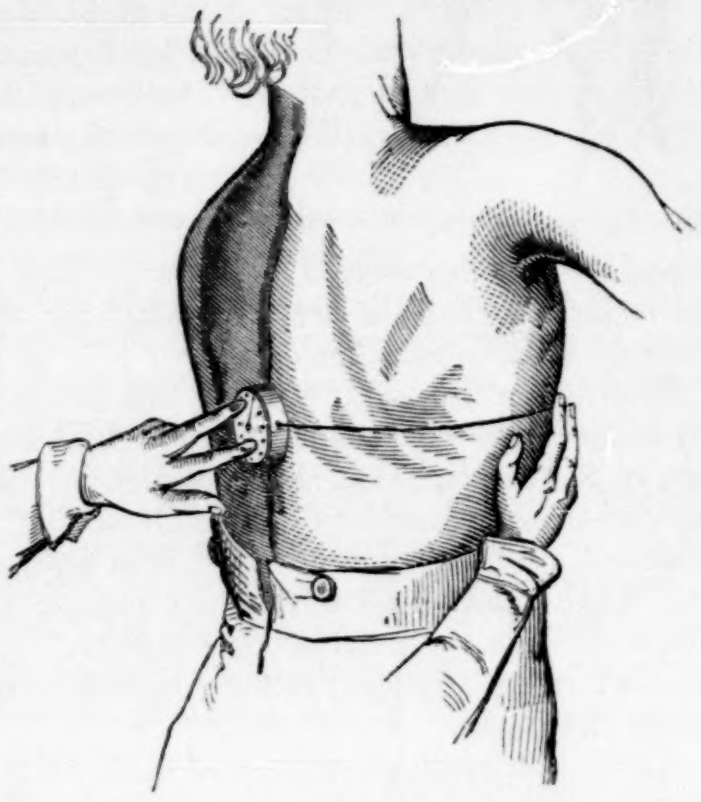

Fig. 2.

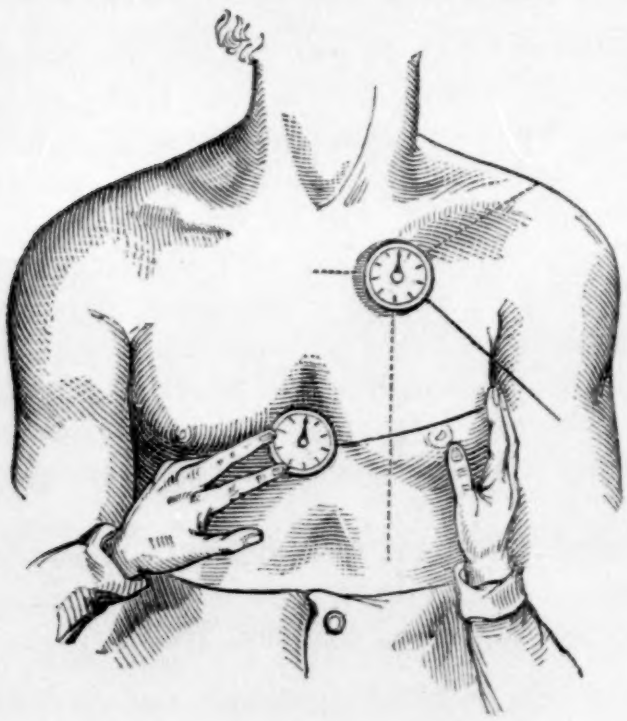

Fig. 3.

The use of the pedestal, which can be fixed in the side

of the case with the foot attached, is shown in figure 4. The instrument thus used is intended to ascertain the modifications of the movements over a limited or circumscribed spot. On this spot the foot is placed and held, (as shown in the figure) by the fingers of the left hand, the cord directed towards this point is held between the fingers of the right hand. These fingers being thus made the fixed point, must be kept steady and not allowed to touch the part under examination. The spring in the instrument is sufficiently strong to resist the gentle tension made by the fingers, and the instrument itself being pushed forward or raised by the elevation of the part during inspiration, the movement of the index, as when the case is applied on the flat surface, becomes the measure of this elevation.

Fig. 4.

Such being the mode of using the instrument, it will be necessary to say a few words on the precautions which are required in securing accuracy in the result. 1st. It is absolutely imperative that corresponding portions of the chest be examined, and that the mode of applying the instrument, and the point at which it is applied at each side, be identical. 2nd. Care must be taken that the patient breathes in the same manner whilst opposite sides are being examined. 3rd. It should be seen that the cord, when the observation is commenced, is held sufficiently tense to act on the index.

All this requires attention and some little effort; for, as in all other matters, there is little that is of any value which can be obtained without some labor. Though to some few patients these carefully conducted examinations may be irksome, yet to the vast majority they are far otherwise. In the latter, they beget confidence in the medical attendant, and frequently at once inspire a feeling which renders all future intercourse not less pleasing than it is conducive to successful treatment.

The object of the instrument is not so much to test the relative breathing powers of different individuals, (for testing which, Dr. Hutchinson's spirometer is a more correct means,) but to ascertain any want of symmetry, independently of malformation, and therefore indicative of disease, in the movements of the corresponding parts of the same chest. How much a morbid condition of the lungs may interfere with the free movements of the walls of the chest, is obvious; and in commencing disease—the earlier stages of phthisis for instance—or as a confirmation of the existence of lesion suspected by other means, mensuration will prove a very valuable aid in diagnosis. It need not, of course, be pointed out, that it does not apply when both sides of the chest are equally diseased, a very rare occurrence, however.

The instrument may be also turned to account as a means of measuring increase or diminution in the volume of solid tumours, or other swellings. —*Abridged from London Journal of Medicine, October*, 1850.

Treatment of Typhoid Fever by Mercurials. M. Becquerel has lately submitted to the French Institute a memoir on the treatment of Typhoid Fever by Mercurials, which is well worthy of attention.

In the year 1847, M. Serres read at the Institute a series of papers on "The Nature and Treatment of Typhoid Fever," and proposed a new mode of treatment, which he considered likely to exercise a most beneficial influence on the progress and character of that disease. The mercurial treatment of M. Serres consisted in the internal use of the black sulphuret, in doses varying from twelve to sixty grains, and in frictions over the abdomen with common mercurial ointment, in quantities varying from half an ounce to one ounce daily.

This treatment was continued for ten or twelve days—even longer, until the prominent symptoms of the fever had given way.

Having been appointed to take charge of M. Serres' patients at la Pitié for some time, M. Becquerel resolved on submitting the mercurial method to further experiment. He therefore made trial of it on fifteen patients affected with typhoid fever, abstaining, with some slight exceptions, from the use of any other remedy.

The black sulphuret of mercury was administered to each patient immediately on his admission; he began with thirty-two grains, in the form of pill or powder, divided into five or six doses. If no improvement took place in two or three days, the dose was increased to forty-eight or even sixty-two grains. As soon as convalescence commenced, the remedy was discontinued. In no case was the salivation severe enough to render discontinuance of the mercury necessary.

The mercurial ointment was employed in the quantities recommended by M. Serres, being increased in such cases as demanded an increase of sulphuret. Thus, with thirty-two grains of the sulphuret, sixteen scruples of mercurial ointment were employed in two frictions; and with sixty-four grains, thirty scruples. In order to favor absorption, the abdomen was cleansed every day with soap.

The accessory remedies employed were—ice, seltzer-water, and lemonade, as a drink; simple lavements, or, in cases of constipation, a laxative clyster.

In ataxic cases, of which four occurred, musk was administered as a stimulant to the extent of five or six grains a day.

The following are the results of the practice:—Fifteen patients, all laboring under typhoid fever in a severe form, were treated—ten men, five women. The men were aged—2, 16 years; 2, 17; 2, 18; 1, 20; 2, 22; 1, 36 years. The ages of the women were—15, 18, 20, and two of 21 years.

The male cases may be arranged as follow: 4 laboring under the ordinary abdominal form; 5 presenting adynamic symptoms of a very severe nature; and 1 with ataxic fever, in which the delirium and agitation predominated.

Of the females, 1 was affected with the adynamic form; 1 with common typhoid fever; 1 with the ataxo-adynamic, and two with the ataxic fever. Dating the commencement of the attack from the first appearance of a

febrile movement, we find that 2 entered hospital on the second day; 2 on the fourth; 7 on the fifth; 3 on the sixth; and 1 on the eighth day. The premonitory symptoms of headache, muscular depression, &c., had, besides, varied from three to twelve days before the regular febrile attack commenced.

The treatment was begun, in the 15 cases, on the day after admission. The following were its principal effects:—

Febrile Movement.—The first few doses of the sulphuret, and a few frictions, diminished the heat and dryness of the skin, which in some cases became moist. The pulse, at the same time, constantly fell. It varied from 84 to 116 in the different cases, and in all, the frequency was diminished by the third day.

Mouth.—The dry, rough condition of the tongue, and the blackness of the lips, never disappeared until salivation had set in. The latter occurred twelve times in the 15 cases: it was absent twice; and in these two cases, recovery was just as prompt as in the former. In the only fatal case, the tongue remained dry to the end of the disease. In every case but one the salivation was slight: in the one excepted, the tongue and gums continued swollen for twelve days.

With respect to this effect, the following propositions appear to be established:—

1. In ordinary typhoid fever of moderate intensity, salivation occurs more quickly than in the other forms; it is more decided, and continues a little longer during the convalescence, of which it is usually the precursor.

2. In severer cases, the salivation occurs at a later period, and is less considerable; sometimes it takes place at the moment the febrile symptoms disappear; in other cases, a few days previously.

3. In the most dangerous cases, it is very difficult to excite salivation, and, until this takes place, we have always to dread some accident. Great perseverance is therefore requisite.

4. Finally, in a few mild cases, salivation does not exist, the mercury appearing to master the disease in less doses than are necessary to stimulate the salivary glands.

Tympanitis.—In every case, except the fatal one, this symptom diminished with great rapidity, and that from the commencement of the treatment.

Bowels.—The mercury produced, in two cases, one or two fluid stools daily; in two others, accompanied by constipation, it had no laxative effect, and lavements became necessary. In three cases of diarrhœa (five or six fluid stools a day) the looseness diminished in a remarkable manner as soon as the remedy was employed. In eight cases it had no effect whatever on the state of the bowels, neither augmenting nor diminishing the diarrhœa.

Rose Spots.—These spots, when situate on the abdomen, were invariably removed in twenty-four to thirty-six hours by the mercurial frictions; but they continued their course on the other parts to which mercury was not applied.

Delirium.—When this symptom was at all prominent (four cases) musk

was given to the extent of five or six grains daily. Although so violent that the use of the straight-jacket had been necessary, these patients became calm in four or five days. As to the cough, chest symptoms, and stupor, they followed the general course of the disease, and appear to have been modified in a secondary way only.

Duration of Treatment.—In four cases the treatment was prolonged to 7 days; in three cases, to 8 days; in one to 9 days; in three to 10 days; in one to 12; in one to 15; in one to 16; in one to 17 days. The mean duration was, therefore, 10 days.

The quantity of mercury employed was, on an average, 12½ scruples of the sulphuret, and 200 scruples of mercurial ointment. The smallest quantity was, 7 scruples of the sulphuret, with 112 scruples of ointment; the maximum, 24 scruples of the former and 360 of the latter.

Duration of the Disease.—The mean duration of the disease in fifteen cases was 16 days. In one case the duration of the fever was 12 days; in two, 13 days; in three, 14; in three, 15; in one, 16; in one, 18; in two, 20 days; in one, 21 days; and in one, 23.

From the above facts M. Becquerel draws the following conclusions:—

The treatment of typhoid fever by the black sulphuret of mercury and mercurial frictions over the abdomen, is attended by the most advantageous results. The effects are more striking in proportion as the disease is treated at an early period. In fifteen cases, all of a severe nature, taken indiscriminately, only one death occurred, and that from perforation of the intestine. The duration of the disease, also, was unquestionably shortened by this method of treatment, for it varied from twelve to twenty-three days. The duration of the treatment varied from seven to seventeen days.

The following were the most remarkable effects of the remedy:—Diminution of the force and frequency of the pulse, and of the heat of skin; *rapid and early disappearance of the typhoid eruption*; rapid removal, also, of the tympanitis; excitement in a great majority of the cases of salivation on the 6th to the 13th day, which is almost a certain sign that the treatment has succeeded, and that the patient will recover. Combined with mercury, the musk was effectual in subduing rapidly the most severe ataxo-adynamic symptoms.

Since the publication of M. Becquerel's memoir, ten additional patients, laboring under severe typhoid fever, have been cured by the mercurial method. This gives a sum of twenty-five cases, with one death—a result which certainly entitles the practice to consideration, if it does not at once stamp its merit.—*London Medical Times*, Nov. 2, 1850.

MATERIA MEDICA AND THERAPEUTICS.

American Antidote against Snake-Poison.—Dr. Pereira submitted to the meeting a specimen of cedron seeds (seeds of *simaruba cedron*) from Panama, in South America. These seeds have long been used, and with great confidence, by the native doctors of Panama, as an antidote against snake-poison. The reputation they have thus acquired has recently attracted attention in France, where it is said a great con-

gress of medical men is appointed to be held next month, for the purpose of testing, by experiment, the virtue of this celebrated remedy, and two gentlemen, M. Auguste Guillemin and M. Hippolyte Fournier, Professor of Mathematics of the department of Arvegron, have offered themselves to be operated upon. It is announced that all the different States of Europe will be represented at the congress. The remedy is proposed to be applied to the cure of mental disease and epilepsy. Notwithstanding the interest which has thus been excited on the Continent, by the description given of the wonderful effects produced by the *cedron*, Dr. Pereira appears to have very little faith in its efficacy, at least in such cases as those referred to.—*London Medical Times, Dec.* 14, 1850.

[In addition to the statement given above, we have received a letter addressed to Dr. Peter Smith of the City Hospital at San Francisco, California, by Don José de Obaldia, Governor of Panama, dated Nov. 22d, 1849, in which he confirms the experience of the native physicians of Panama. He says that the tree which produces the fruit, and is called the "cedron," is described in the scientific work of Dr. Cespedes, one of their own naturalists, and that the fruit is given internally in five grain doses, as an antidote to the bite of the rattlesnake, viper, and scorpion, and to the sting of wasps, &c.

For internal use, the scrapings of the fruit are administered in a wine-glassful of spirits or warm water, at the same time that the wound is washed in an infusion and covered with the scrapings, secured by a bandage. The dose is to be repeated every two hours till relieved. To quench the attendant thirst, a weak infusion of the cedron is exhibited.

Several cases are related in which the cedron proved beneficial, where other means had failed to restore those bitten by venomous snakes, and what is worthy of notice, the recovery was much more rapid than in the case of those less violently affected and who were restored by other means.

The cedron has also been used successfully in cases of retained placenta (Pares,) both as an internal remedy and an external application to the genitals.

The tree grows abundantly in humid places, and as the wood is inapplicable to the uses of life, and the fruit rejected by animals on account of its bitterness, an abundant supply is predicted. We are also informed that the scrapings have been very sucessfully employed by Dr. P. Smith as a substitute for Quinine in the treatment of malarious fevers. A drawing of the fruit will be found accompanying Dr. Horner's article on California in this number.—Eds. Examiner.]